Tacit Knowledge for Military Leadership

Development of Military Leaders

Army leadership doctrine clearly acknowledges the importance of leader knowledge. The Army has an integrated, progressive, and sequential program of leader knowledge development based on three pillars: 1) institutional training, 2) self development, and 3) operational assignments. It is widely acknowledged that the most important and effective of the three is operational assignments.

Army leaders learn about leadership while doing real work in the motor pool, in the field, and in the barracks. But this research is the first systematic effort to understand this practical, experience-based knowledge and its relevance to leadership effectiveness. On-the-job experiences provide opportunities for officers to learn how to apply leadership knowledge codified in doctrine and taught in the Army school system, and they provide a context for acquiring new knowledge about leadership knowledge not well supported by doctrine or formal training (we call this "tacit knowledge"). Because leaders acquire much of their knowledge from operational assignments, understanding what it is that they learn and how to promote successful learning is the objective of this research.

The tacit knowledge approach to understanding leadership looks at knowledge that is experience-based, practically-relevant, and acquired with little support from the environment (e.g., through formal instruction and coaching). A multi-year study was conducted to apply the tacit-knowledge methodology to understanding what distinguishes more from less effective leaders. The methodology and results of this long-term effort are summarized below.

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The tacit knowledge for military leadership project is aimed at understanding the role of operational assignments in the development of effective leaders. The plan is to use this knowledge to speed up leadership development through web-based instruction and self-development. We developed and validated tacit knowledge inventories for leaders at three echelons: platoon leader, company commander, and battalion commander.

We first interviewed 81 Colonels and LTCs and gathered stories and advice about their lessons learned about leadership. These stories were then simplified into coded tacit-knowledge items and administered in the form of a survey to over 1,500 officers who rated the quality of each knowledge item. The quality ratings and content categories were used to select the most promising items for developing an inventory to measure tacit knowledge. For those items that were retained, a more detailed problem scenario was developed using the original interview data. Each scenario posed a leadership problem along with a set of 5 to 15 possible responses. These scenarios have now been rated by hundreds of officers at ranks from LT to LTC. A sample scenario is shown in Figure 1 (see next page).

Results

We found that tacit knowledge for military leaders (TKML) scores generally were a better predictor of leadership effectiveness than verbal ability, rank, or experience. Experience, as measured by months in a job, showed no relationship with leadership effectiveness. Verbal ability correlated moderately with leadership effectiveness at the platoon and company levels. But tacit knowledge consistently predicted effectiveness above and beyond verbal ability at all echelons. Our research indicates that tacit knowledge adds to our understanding of leadership effectiveness, and does so beyond traditional predictors that have had more limited success.

Tacit knowledge scores, a better predictor of leadership effectiveness

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Practical Intelligence and Learning Tacit Knowledge

Implicit in our work on the identification and measurement of tacit knowledge is the notion that some individuals are better than others at learning from their experiences. Sternberg has called this underlying ability "practical intelligence". Practical intelligence proposes that success in any domain involves recognizing one's strengths and applying them in the pursuit of personally valued goals. Practical

Figure 1. Sample question from the Tacit Knowledge Inventory for Military Leaders. For sample answers, see http://www.companycommand.com/tacit2/index.html

1	2	3	4	5	6	7	8	9
Extremely Bad		Somewhat Bad		Neither Bad Nor Good		Somewhat Good		Extremely Good

Sample. You are a company commander, and your battalion commander is the type of person who seems always to "shoot the messenger"– he does not like to be surprised by bad news, and he tends to take his anger out on the person who brought him the bad news. You want to build a positive, professional relationship with your battalion commander. What should you do?

____ Speak to your battalion commander about his behavior and share your perception of it.

____ Attempt to keep the battalion commander "over-informed" by telling him what is occurring in your unit on a regular basis (e.g., daily or every other day).

____ Speak to the sergeant major and see if she/he is willing to try to influence the battalion commander.

____ Keep the battalion commander informed only on important issues, but don't bring up issues you don't have to discuss with him.

____ When you bring a problem to your battalion commander, bring a solution at the same time.

____ Disregard the battalion commander's behavior: Continue to bring him news as you normally would.

____ Tell your battalion commander all of the good news you can, but try to shield him from hearing the bad news.

____ Tell the battalion commander as little as possible; deal with problems on your own if at all possible.

intelligence is the ability to adapt to, select, and shape environments in the pursuit of personally valued goals. To adapt is to change oneself to suit an existing environment; to shape is to change an existing environment to suit oneself; and to select is to find a more suitable environment than the current one. Measures of tacit knowledge can assess any or all three of these aspects of practical intelligence. For example, tacit knowledge for management may address primarily one's ability to adapt to environments, while tacit knowledge for leadership may measure the ability to shape environments.

Tacit knowledge represents an aspect of practical intelligence – it is knowledge gained in the process of solving practical problems. It represents the ability to learn from performing poorly-defined, context-specific practical tasks that do not necessarily have clear answers.

The Development of Expertise

Literature on the development of expertise provides some direction for exploring how tacit knowledge is learned. Research on famous musical composition shows that it is dependent on extensive experience, knowledge and practice, with most composers of genius (such as Mozart) requiring at least ten years of effort before they produced work of sufficient quality to be recorded. This suggests that leadership expertise is learned at a similar slow rate as officers rise in rank. TKML results (see Figure 2) bear this out.

Tacit knowledge scores increased steadily across all three echelons (Platoon, Co, and Bn) on all three instruments. We would expect that rank would have the least affect on scores at the platoon level where all officers, even lieutenants, have had extensive experience as platoon leaders. Therefore, we should find the smallest differences in TKML scores and experience across ranks at this level. On the

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company and battalion instruments, we expect rank differences to be more apparent since only senior officers in the sample have had experience at these levels. This expectation is confirmed by the greater rise in scores from LT to LTC, and significant correlations involving rank on both the Co TKML and Bn TKML (r = .44 and .41 respectively).

Knowledge or Art

Although the survey questions provide amazingly accurate and replicable measures of tacit knowledge, they do not answer the age old questions of how much of leadership is science, and how much is art; how much is learned and how much is inborn. What we now know is that we have a powerful new instrument to assess non - doctrinal leadership knowledge and reasoning. A little bit more of the mystery of leadership has been exposed with a new technology that appears to have the potential of creating objective measures of very complex intuitions and expert insight. By converting intuition and insight into knowledge, we have raised the real possibility that this is trainable. If this proves true, we will be able to construct an interactive web-based environment that may be used for instruction or self - develop-

Echelon	LT	CPT	MAJ	LTC
Platoon TKML	.64	.69	.68	.71
Co TKML	.62	.66	.70	.71
Bn TKML	.60	.68	.69	.76

Figure 2. Sample scores on the Tacit Knowledge inventory for Military Leaders at Platoon, Co, and Bn levels, showing increasing scores by rank from LT to LTC.

ment in tacit knowledge to improve leadership in the Army.

References

Hedlund, J., Sternberg, R.J. , & Psotka, J. (2000) *Identifying the abilities involved in the acquisition of tacit knowledge*. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Sternberg, R.J., Forsythe, G.B., Hedlund, J., Horvath, J. A., Tremble, T., Snook, S., Williams, W.M., Wagner, R.K., & Grigorenko, E.L. (2000). *Tacit knowledge in the workplace.* Technical Report 1093). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.