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EXERCISE/EXERCICE NEW HORIZONS

ADVENTURE TRAINING: DEVELOPING THE
LEADERSHIP POTENTIAL OF FUTURE ARMY LEADERS

By /par Lieutenant-Colonel D.C. Nauss, 12 May 2002

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Abstract

This paper examines military adventure training from the perspective of leadership development within the Army. Although leadership development is common to all components of the Canadian Forces (CF), the Army places particular emphasis on adventure training. Consequently, the scope of the paper has been limited to focusing on leadership within an Army context.

There are many aspects of adventure training that make it a worthwhile military activity. Some aspects, such as raising morale or team building require little qualification, as they are implicitly beneficial outcomes of adventure training. On the other hand, leadership development, which is often touted as the rationale for adventure training, is not easily qualified, especially considering the range of adventure activities and programmes from which to choose. Nevertheless, there are many civilian organisations, for example Outward Bound, which make the claim that leadership can be developed through adventure programmes. So too does the current CF policy on adventure training along with the policies of a number of other commonwealth militaries, such as the United Kingdom and Australia. Consequently, This paper argues that adventure training can play a role in the development of specific competencies required for effective leadership for members of the CF, in particular the Army. It is proposed that a horizontal transfer of leadership competencies from the adventure training environment to tactical levels of leadership in the military environment can occur. Furthermore, a vertical transfer of these same skills upwards to successive higher-levels of leadership can also take place. Thus, properly conducted adventure training is not only a worthwhile form of recreation, which builds esprit and unit cohesion, it also has the potential to provide a basis for establishing

a foundation for leadership at senior levels. As such there is an imperative for the Canadian Army to continue to ensure that adventure training be conducted properly and that it be conducted within well-defined guidelines.

Table of Contents

S	Signatures.....	i
A	bstract.....	ii
T	able of Contents.....	iv
I	NTRODUCTION.....	1
P	ART I - LEADERSHIP SKILL DEVELOPMENT AND MILITARY LEADERS.....	5
	Introduction.....	5
	Leadership.....	6
	Leadership Theory and the Military.....	7
	Leadership at Senior Levels.....	13
	The Development of Senior Leadership Skills.....	14
	Conclusion.....	20
P	ART II - ADVENTURE THEORY AND LEADERSHIP DEVELOPMENT.....	22
	Introduction.....	22
	Adventure Programme Origins.....	24
	Civilian and Military Adventure Programmes.....	26
	Adventure Programme Characteristics.....	27
	Leadership Outcomes and Skill Transfer.....	36
	Conclusion.....	39
P	ART III - LEADERSHIP DEVELOPMENT AND MILITARY ADVENTURE TRAINING.....	41
	Introduction.....	41
	Leadership Development Through Adventure Training.....	42
	Approaches to Military Adventure Training.....	46
	A Programme for the Canadian Army.....	55
	Conclusion.....	58
C	ONCLUSION.....	60
B	IBLIOGRAPHY.....	64

“A mind that is stretched by a new experience can never go back to its old dimensions.”¹

Oliver Holmes

INTRODUCTION

The challenge of paddling through raging white-water or climbing to the summit of a rugged mountain can be exhilarating, and there is little doubt that such activities are superb for developing courage, stamina, building organisational cohesion and improving morale.² Indeed, these are some of the reasons that the Canadian Forces (CF) employ adventure training as a common adjunct to more conventional forms of military training. This is also why Canada’s Army considers adventure training relevant for the preparation of soldiers for combat.³ However, adventure training has the potential to make an even more profound impact based on its ability to develop leadership.

CF policies direct that adventure training foster the development and practice of military leadership, by exposing individuals to a degree of personal risk that is both mentally and physically demanding.⁴ Therefore, adventure training, perhaps more appropriately regarded as adventure experience, may be a practical means of developing the leadership potential of future Army leaders.

Leadership skills must be developed throughout an individual’s career, for that reason, the Canadian Army uses a progressive system of education, training, experience and self-development.⁵ Education generally takes place in formalized academic settings; training

¹ Oliver Holmes quotation. Available at: <http://www.lakeonline.act.edu.au/courses/faculties/outdoored/quotes.html>. As of 2 April 2002.

² Canada, “CFAO 9-58, Adventure Training.” Canadian Forces Administration Orders, 14 April 1988.

³ R.J.F. Baillon, “A Better Approach to Adventure Training in the Canadian Forces” NDHQ Staff Officer for Adventure Training, un-published service paper, date unknown. 3.

⁴ CFAO 9-58.

⁵ Canadian Forces. “The Officer Professional Development (OPD) System.” DAOD 5038-1.

occurs predominantly within a unit context; and experience is obtained either through routine employment, operational tours or command assignments. Of these different types of experience, operational experience is often the most elusive and difficult to obtain, since it is not something that is easily forecasted and scheduled.⁶ Yet operational experience is a very important facet of developing leadership skill, and without such experience an individual's effectiveness as a leader may suffer.⁷

Experience, according to Beare (2001) is defined as the setting in which “training and education are contextualized.”⁸ Within an operational context, experiences foster leadership development through a process that relies on feedback and self-analysis.⁹ During this process improved cognitive capacities and new patterns of behaviour can be acquired.¹⁰ Hence, adventure training, with the right challenges and an appropriate mix of risk and stress, has the potential to provide meaningful leadership development opportunities that can approximate real operational experience. However, adventure training often falls short of achieving this crucial leadership objective. Not only are many of the selected adventure training activities insufficiently challenging to induce risk, but the development and practice of leadership is often considered to be purely incidental and therefore not included when formulating an adventure training expedition. Furthermore, increasing numbers of operational deployments and reduced funding have resulted in less opportunity for soldiers to participate in meaningful adventure training. As a result, the value of adventure training as a

⁶ Stuart A. Beare. “Experience in Officer Professional Development: A Pillar in Peril.” The Army Doctrine and Training Bulletin – Canada’s Professional Journal of Army Issues Vol. 4, No 4, Winter (2001). 36

⁷ DAOD 5038-1; and, Gary Yukl. Leadership in Organisations. 4th ed. Upper Saddle River, NJ: Prentice Hall, 1998. 475.

⁸ Beare 36.

⁹ Yukl 4th ed. 476.

¹⁰ Australian Army. Australian Army Adventurous Training Wing, Manual. Chapter 2. 2.

leadership experience has been significantly undermined; this is unfortunate given recent initiatives within the Army intended to improve leadership development across all levels.¹¹

The unique ability of adventure training to foster leadership development within an environment that can mimic operational stress is a claim that sets it apart as a valuable form of military training and differentiates it from physical recreation or sport.¹² However, there is no direct theoretical or empirical evidence to corroborate this claim. With the exception of anecdotal references, the relevant CF policies are not grounded in any evident theoretical research. Nor do these policies provide guidance on how leadership outcomes should be achieved. Nevertheless and in spite of this, there exists credible civilian based programme research, which shows that leadership competencies can be enhanced through appropriately conceived adventure programmes. Therefore, based on contemporary theories of leadership, it is proposed that properly conducted military adventure training can provide a unique environment within which army leaders can develop relevant leadership skills that are both transferable to junior leaders and applicable at successively higher levels of army leadership.

To support this thesis, a discussion in Part I will explore contemporary leadership theory with the aim of establishing a framework from within which the nature of military leadership can be understood, and senior leader competencies determined. Linkages between senior and junior leadership will be examined in order to identify the senior leader skills that should be developed early in a leader's career. This will become relevant in linking adventure training to junior leadership in the army. The analysis will rely predominantly upon a cross disciplinary review of theoretical leadership research.

¹¹ The Canadian Land Forces have recently launched an initiative called the Army Leadership Project. Among one of its objectives is the development of a Land Force leadership manual.

¹² Baillon 1-5.

Part II of the paper will examine civilian adventure training and its capacity to develop leadership. This Part will review available theoretical and empirical studies, specifically those dealing with the effects of civilian adventure programmes on leadership competencies.

Finally, Part III will provide a synthesis of Parts I and II. Civilian and military adventure programmes will be compared with a view to identifying how specific leadership competencies are developed and how they can be transferred from the adventure setting to an army context. The paper will conclude with a review of the key aspects of the discussion, an assessment of the analysis and recommendations. A supportive finding will unequivocally establish the value of adventure training for developing the potential of future Army leaders.

PART I - LEADERSHIP SKILL DEVELOPMENT AND

MILITARY LEADERS

Introduction

There have been many papers, books and reports written on the subject of leadership skill and effectiveness. This abundance of information spans a body of knowledge from the reasoned analysis, supported both by theoretical and empirical research, such as Yukl (2002), *Leadership in Organizations – 5th Edition*, to less qualified how-to-books, such as Loeb and Kindel's (1999) *Leadership for Dummies*. However, identifying requisite senior leadership skills from the available literature is challenging, especially given the lack of consensus as to a universally applicable theoretical framework for effective senior leadership.¹³

Many researchers have used different approaches, such as style, trait and behaviour theory, in order to establish a valid theoretical framework from within which to study military leadership. Such a framework would provide a basis of comparison between military leadership and the capacity of adventure training to develop leadership competencies. Ultimately, this may assist in the validation of adventure training as a leadership development tool for the Army.

¹³ Gary Yukl, *Leadership in Organisations* 5th ed. (Upper Saddle River, NJ: Prentice Hall, 2002) 10.

Leadership

Leadership is a term that means different things to different individuals.¹⁴ Some definitions refer to ‘good leadership’ or ‘effective leadership,’ which is entirely different than leadership itself. Furthermore, leadership can be interpreted differently depending upon the academic context in which it is being discussed. Within the military, leadership is a term that is often confused with management, command or authority.¹⁵ Within a civilian adventure programme context formal definitions of leadership are not readily apparent in the literature. In this case when leadership is discussed, it is more often referred to as a singular quality and not a necessarily a process. Therefore, it may imply a whole range of leadership competencies or it may simply refer to an individual’s ability to be a leader. Thus, coming to terms with the intent of what such research means to leadership depends solely upon the individual approach taken in the particular research.

In the broader literature, theoretical concepts, models and propositions about leadership, although abundant, remain difficult to apply in all circumstances. Within both the military and the adventure training spheres, different approaches can be used to study leadership. For instance, ‘Group Leadership’ as opposed to ‘Executive Leadership’ may require two entirely distinct models to adequately account for the processes involved. Accordingly, no clear consensus has emerged as to a universally applicable theory of leadership, let alone a theory of military leadership.¹⁶ Consequently, rather than attempting to offer a definition of

¹⁴ Yukl 5th ed. 2.

¹⁵ Bernd Horn, “Wrestling with an Enigma: Executive Leadership,” Contemporary Issues in Officership: A Canadian Perspective ed. Bernd Horn (Toronto: Canadian Institute of Strategic Studies, 2000) 123.

¹⁶ Joseph C. Rost. Leadership for the Twenty-First Century. (Westport, Connecticut: Praeger, 1993) 9.

leadership, it is more appropriate to simply use the “various conceptions of leadership” based upon the perspective of the research.¹⁷

Leadership Theory and the Military

Most literature relating to military leadership is grounded in contemporary scientific research. Some, however, has relied upon what David C. Nice (1998) describes as the classic ‘Warrior Model’ of leadership. The writings of Machiavelli, Clausewitz or Sun Tzu could be categorized within this approach to leadership.¹⁸ Other leadership literature is more anecdotal in nature. This type of analysis is sometimes used in the Style Approach to leadership.¹⁹ Usually such material is written by successful military leaders and is replete with personal maxims. For example, in Field Marshall Montgomery’s (1961) *Path to Leadership*, he suggests that “... soldiers will be more likely to follow a leader in whose military knowledge they have confidence, rather than a man with much greater personality...”²⁰ Although interesting, and perhaps of relevance to the student of military leadership, the superficial nature of both the Warrior and Style approaches do not adequately explain the processes underlying leadership, especially within a military context. Instead, the answers probably lie in the large body of both theoretical and empirical leadership research, which has been evolving over the last one hundred years.

Joseph Rost, in his book *Leadership for the 21st Century*, would consider the Style Approach to be part of the “Industrial Leadership Paradigm.”²¹ This is a school of leadership,

¹⁷ Yukl 4th ed. 5.

¹⁸ David C. Nice. “The Warrior Model of Leadership: Classic Perspective and Contemporary Relevance.” *Leadership Quarterly*. 9.3 (1998): 321-322

¹⁹ Michael D. Mumford, et al. “Leadership Skills for a Changing World: Solving Complex Social Problems.” *Leadership Quarterly*. 11.1 (2000): 12

²⁰ Montgomery of Alamein, Bernard. *The Path to Leadership*. (London: Collins, 1961) 10.

²¹ Rost 181.

which focused on the peripheral and content elements of leadership, such as: "...traits, style, preferred behaviours, contingencies and situations and effectiveness."²² Bernd Horn, amplifying Rost's ideas, describes the 'industrial age paradigm' as a "... 'top-down' hierarchical interpretation of leadership..." which today is still "...reflected in the definitions used by military institutions such as the Canadian Forces."²³

As Horn suggests, the CF official perception of leadership has not readily evolved to accept new theoretical propositions. For instance, the CF manual, *Leadership Volume 2 – The Professional Officer*, which was last revised in 1973, describes leadership as "...the art of influencing human behaviour so as to accomplish a mission in the manner desired by the leader."²⁴ According to Horn this is a "result-oriented" interpretation, as opposed to a "process-oriented" interpretation of leadership.²⁵ This means that mission success is often inappropriately attributed to effective leadership skills, when in reality; a commander may have had poor leadership skills and the success of the mission resulted more from a combination of other factors.²⁶ In more contemporary doctrine, such as the Land Force manual: *Command*; senior military leadership is described as:

"...the projection of personality and character to get soldiers to do what is required of them...The commander determines the objective and, while his staff assists, it is the commander who conceives the plan and provides the drive, motivation and energy to attain that objective."²⁷

This definition, as well, is leader oriented and makes no reference to leadership processes.

Horn would decry this view because it is still too "institutionally focused," and continues to

²² Rost 180.

²³ Horn 124.

²⁴ Canadian Forces. *Leadership Volume 2 – The Professional Officer (A-PD-131-002/PT-001)*. Ottawa: National Defence Headquarters, 1973) 2-1.

²⁵ Horn 124.

²⁶ Horn 124.

²⁷ Canadian Land Forces. *Command (B-GL-300-003/FP-000)*. 21 July 1996. 12.

represent Rost's 'industrial age' perception of leadership which was "good management."²⁸ For Horn, the concepts of management, command and authority are not leadership. They, like leadership, are simply the implements used by all leaders to command. In this context Horn believes "leadership is a relationship that must be created and nurtured instead of a skill or technique to be refined."²⁹ Thus, in order to ensure that effective leadership skills are developed, it is essential that the military have a valid and contemporary understanding of the true nature of leadership and all its components.

The 'industrial age' school of leadership described by Rost includes what Northouse would term the trait theory of leadership, where-in leadership was viewed as relating to specific personal attributes that only certain people could possess.³⁰ Sometimes, metaphorically referred to as the 'great captains' approach, traits such as intelligence, self-confidence, and charisma were seen to be the marker of a good leader.³¹ Traits are not necessarily completely irrelevant; indeed there has been a resurgent interest in the study of trait theory in recent years. Yukl (1999) even suggests that traits are an important predetermining aspect of leadership potential.³² Other research, by Mumford et al (2000), indicates that leadership skills develop as a function of both traits and experience.³³ However, trait approaches by themselves have never adequately accounted for the full range

²⁸ Horn 125.

²⁹ Horn 125. (The reference to leadership not being a skill is correct. However, in this sense, Horn is referring to leadership as a singular characteristic, rather than a multiple of skills involved in the leadership process.)

³⁰ Peter G. Northouse, Leadership Theory and Practice 2nd ed. (Thousand Oaks: Sage Publications, Inc., 2001) 4.

³¹ Yukl 4th ed. 8.

³² Yukl 4th ed. 236.

³³ Michael D. Mumford, et al. "Leadership Skills: Conclusions and Future Directions" Leadership Quarterly. 11.1 (2000) 156.

of leadership skills, therefore researchers have been compelled to focus their attention elsewhere.³⁴

Today, leadership theorists commonly accept that leadership is an influence process.³⁵ This, according to Northouse, is a “phenomenon that resides in the context and makes leadership available to everyone.”³⁶ Rost argues that leadership viewed as an influence process, represents a paradigm shift towards a more transformational oriented school of leadership. He says that the transformational school provides an understanding of the real processes at work within leadership, which include both leaders and followers.³⁷ Northouse (2001) describes transformational leaders:

“...as good role models, who can create and articulate a clear vision for an organisation, who empower followers to achieve at higher standards, who act in ways that make others want to trust them, and who give meaning to organizational life.”³⁸

The concept of transformational leadership, which was introduced by J.M. Burns in 1978 and Bernard M. Bass in 1985,³⁹ embraces the notion that leadership is an influence process. The theory is based upon the proposition that the “transformational leader moves the follower beyond self-interests” and inspires him or her through charisma, competence and compassion to achieve a common goal.⁴⁰ It is composed of four components of leader behaviour: Charismatic Leadership involves behaviours that generate admiration, respect and trust; Inspirational Motivation involves behaviours that give meaning to follower’s work; Intellectual Stimulation encourages followers to be innovative within a collective problem-

³⁴ John D. Kovacheff, et al. Leadership Theory, Measurement, and Implications for Officer Selection. Willowdale, On: Canadian Forces Personnel Applied research Unit, July 1992. 5.

³⁵ Mumford “Changing World.” 12.

³⁶ Northouse 4,11.

³⁷ Rost 180.

³⁸ Northouse 158.

³⁹ Rost 123.

⁴⁰ Bass, Bernard, M. Transformational Leadership: Industrial, Military, and Educational Impact. (Mahwah, NJ: Lawrence Erlbaum Associates, Publishers, 1998) 3-6.

solving environment; and finally, Individualized Consideration stresses that leaders demonstrate acceptance of follower differences and that leaders deal with each follower according to the follower's respective needs.⁴¹

Believing that transformational leadership lies on a continuum, along with 'transactional' and '*Laizey Faire*' leadership, Bass (1998) proposed a 'Model of the Full Range of Leadership'. At the bottom, in the least effective and passive realm, lies *Laizey Faire* leadership representing a complete absence of leadership. In the middle of the spectrum is the transactional dimension, what Horn might consider a more traditional style of military leadership and which "occurs when the leader rewards or disciplines the follower depending upon the adequacy of the follower's performance."⁴² According to Bass (1998), a transactional leader's decision-making ability is also prone to be more rapid and unilateral when operating under stressful conditions.⁴³ Hence, transactional leadership is a more authoritarian and coercive form of leadership. Finally, at the upper end of the spectrum, in the active and most effective domain, sits transformational leadership. As an influence relationship that exists between leaders and followers, transformational leadership relies on non-coercive leader behaviours to motivate followers to achieve the shared objectives of an organisation.⁴⁴

Within the Full Range of Leadership Model, in particular within transformational theory, considerable emphasis is placed on followers. This stems from transformational leadership

⁴¹ Ibid

⁴² Ibid 5-6.

⁴³ Ibid 33-36.

⁴⁴ Rost 102.

theory not only being an influence process; it is one of shared influence.⁴⁵ Leadership in this sense is dynamic, involving the interactions of both leaders and followers.

Nonetheless, transformational leadership theory, while extremely successful for explaining one leadership approach, does not account for the competencies required of leaders in complex organisations, like the Canadian Army.⁴⁶ Even though Mumford et al (2000) view transformational leadership as an important contributor to our understanding of leadership effectiveness, they classify it as belonging to the behavioural research approach.⁴⁷ This approach, says Zaccaro (1996), is limited in its ability to describe leadership in all circumstances, especially within executive levels of complex military organisations.⁴⁸ Alternatively, Mumford et al (2000) proposed that organisational leadership be conceptualized in terms of the knowledge and skill required for effective leadership at executive levels.⁴⁹ They introduced a skills-based theory, also referred to as executive leadership theory. This theory related the knowledge and experience developed continuously throughout an individual's career directly to an organisational context, such as an army.⁵⁰ Thus, effective leadership, it was theorized, was dependent upon having the skills that would enable a leader to effectively deal with novel and complex problems within complex organisations.⁵¹ The requisite competencies were identified as: complex problem-solving skills (identifying, understanding and solving problems), social judgement skills (solution refinement and implementation) and social skills (motivating and directing).⁵² Hence,

⁴⁵ Yukl 4th ed. 3.

⁴⁶ Mumford "Changing World." 12.

⁴⁷ Ibid

⁴⁸ Stephen J. Zaccaro. Models and Theories of Executive Leadership: A Conceptual/Empirical Review and Integration. US Army Research Institute for the Behavioural and Social Sciences, October 1996. 417.

⁴⁹ Mumford "Changing World." 12.

⁵⁰ Ibid

⁵¹ Francis J. Yammarino. "Leadership Skills: Introduction and Overview." Leadership Quarterly. 11 (2000) 1.

⁵² Mumford "Changing World." 26.

according to Zaccaro (1999), the skills required to deal with complexity are in essence, greater cognitive and social competencies. These competencies, he said, enable leaders to transform their visions and goals into “effective collective action.”⁵³

Leadership at Senior Levels

Military leaders, at all levels, continually strive to improve their professional competencies, and as noted above, improving both cognitive and social competencies are critical for executive leaders. However, Bernd Horn argues that at senior leadership levels within the CF “... the traditional notions of leadership and command are...deficient.” His concern is with an overly “...authoritative and hierarchical top-down mind-set...,” and suggests that a different approach to senior leadership is required within the CF.⁵⁴

One possible approach is Zaccaro’s (1996) theory of executive leadership. In his study, he integrates four models of senior leadership, each with a unique perspective on effective senior leadership. The first model, Conceptual Complexity, is described as being the most explicit in terms of leader performance requirements across organisational levels. Based in part on Stratified Systems Theory, which was developed by Jacobs and Jaques (1987), this model emphasises a requirement for senior leaders to possess high-level cognitive skills in order to facilitate long-term planning.⁵⁵ The next model, Behavioural Complexity, emphasizes a broader range of senior leader roles, such as mentor, negotiator and nurturer. The third model is based on strategic decision-making. This approach deals with the executive’s analytical processes, including strategy development, decision-making and the

⁵³ Stephen J. Zaccaro. “Social Complexity and the Competencies required for Effective Military Leadership.” Out-of-the-Box Leadership: Transforming the Twenty-First-Century Army and Other Top-Performing Organizations. ed. Hunt, James G. et al. Stamford, Connecticut: JAI Press Inc., 1999. 147.

⁵⁴ Horn 129.

steps taken to implement strategic decisions. Finally there is the inspirational or visionary model of senior leadership. This model is a transformational approach, described as the process of “creating psychological and behavioural change in subordinates by altering [the] organizational climate and culture.” Integrated, Zaccaro believes these four models form a relatively comprehensive picture of the competencies required of senior military leaders operating within a complex organisation. Competencies such as: cognitive capacity, social intelligence, behavioural flexibility, reflective thinking (metacognition), self-efficacy and self-confidence are some of the most crucial leadership competencies identified for executive level leaders.⁵⁶

The Development of Senior Leadership Skills

As shown, there are specific competencies required of senior military leaders in order to be effective within the complex realm of executive leadership. These leadership competencies, broadly categorized as skills that enable leaders to deal with cognitive and social complexity, cannot be developed late in an individual’s career. Their very nature demands a development process that spans an individual’s entire career. This will ensure mastery of these skills upon reaching more senior positions where such skills form the essence of effective leadership. Some individuals may well be predisposed to developing such competencies prior to serving in the military. However, it is still incumbent upon militaries, like the CF, to foster the development of cognitive and social competencies as early as possible within a career, not only to develop an individual’s potential for higher command, but also to give leaders new skills to deal with the changing and complex nature

⁵⁵ Stephen J. Zaccaro. Models and Theories of Executive Leadership: A Conceptual/Empirical Review and Integration. US Army Research Institute for the Behavioural and Social Sciences, October 1996. 29-30.

⁵⁶ Zaccaro Models 353.

of the environments within which militaries must now operate. Such complexity increases the requirement for lower levels of leadership to acquire and use the same types of cognitive and social skills formerly accepted as being exclusively within the purview of senior leaders.

McGee et al (1999) support Zaccaro (1996) and have affirmed that the potential to be effective at senior levels is closely related to the possession of higher-level cognitive capacities, predominantly those for dealing with organisational complexity.⁵⁷ In this regard an important aspect of executive level cognition is an individual's metacognitive capability.⁵⁸ Marshall-Mies et al. (2000) report that not only do senior military leaders require cognitive competencies; they also need metacognitive skills for "planning, monitoring and evaluating" their own cognitive capacities that deal with complex problem solving.⁵⁹ Often defined as simply "thinking about thinking,"⁶⁰ metacognition is in essence, the act of self-reflection. Through self-reflection senior leaders develop an understanding of their cognitive processes and in turn are better able to analyse their own problem solving abilities and associated behaviours.⁶¹ As a result, the more effective an individual's metacognitive capabilities, the more effective they will be as executive leaders.

Zaccaro (1999) suggests that although cognitive competencies are important concomitants of the social intelligence of military leaders, the increasing social complexity associated with leadership, also demands that considerable attention be paid to social competencies such as behavioural flexibility, conflict management, persuasion, and social

⁵⁷ M.L. McGee, et al. "Developing Leaders for the new Army" Out-of-the-Box Leadership: Transforming the Twenty-First-Century Army and Other Top-Performing Organizations. ed. Hunt, James G. et al. Stamford, Connecticut: JAI Press Inc., 1999. 235

⁵⁸ Joanne C. Marshall-Mies. et al. "Development and Evaluation of Cognitive and Metacognitive Measures for Predicting Leadership Potential." Leadership Quarterly, 11.1 (2000) 135-137

⁵⁹ Ibid

⁶⁰ Metacognition: An Overview. Available at: <http://www.gse.buffalo.edu/fas/shuell/cep564/Metacog.htm> As of 12 May 2002.

⁶¹ Marshall-Mies 135-137.

reasoning. Zaccaro (1996) viewed cognitive capacities as providing the rationale for executive action, while social capacities provided the means for their implementation.⁶² Thus, a senior leader deals with increased complexity through a variety of mechanisms, which are all reflected, in his or her social behaviour.⁶³ Furthermore, because there is an increasing trend towards higher social complexity in organisations, there is a corresponding “linear progression toward greater complexities as officers [and other personnel] rise in army ranks.” Therefore, Zaccaro (1999) concludes that complex cognitive and social competencies are essential senior military skills that when coupled with an openness to novel experiences, “...will provide army leaders with the flexibility to thrive in the changing military environment.”⁶⁴

Cognitive complexity, according to Zaccaro (1996), is related to Stratified Systems Theory. This refers to the assertion that there are different performance requirements across organisational levels.⁶⁵ At senior or executive levels there are greater demands for increased competencies or skills that support a more complex social environment. As a result, Zaccaro (1996) viewed Stratified Systems Theory as a pragmatic approach to studying leadership effectiveness.⁶⁶ McGee et al (1999) agreed with this approach stating that in Stratified Systems Theory, successive levels in large organisations are characterized by greater task complexity. Stratified Systems theory, according to McGee (1999), also describes large organisations as being divisible into three distinct levels: “...lower (tactical or production), mid (operational or organisational), and top (strategic or executive [senior]).”⁶⁷ According

⁶²Zaccaro Models 199.

⁶³ Ibid

⁶⁴ Zaccaro “Social” 146.

⁶⁵ Zaccaro Models 29.

⁶⁶ Ibid 362.

⁶⁷ McGee 225.

to the theory, at the lowest level, task complexity is minimal and established procedures provide most of the behavioural guidance. At this level there is also a greater requirement for technical knowledge and direct face-to-face leadership.⁶⁸ At the mid level, tasks are described as more complex and demand greater abstract thinking skills. At this level, operational leaders provide the procedural guidance required at the tactical level.⁶⁹ At the top level, tasks become even more complex. Leaders are surrounded by political, economic, social, cultural, technological and information complexities.⁷⁰ Also, it is at this level that leaders must develop a vision of their future goals and end-states.⁷¹ Although differences exist between the various levels, Graen (1999) states that increasing task and organisational complexity is a common theme that links each successive level of leadership. For the leader, this entails the development of a set of expanding leadership skills that can progressively deal with ever more complex situations.⁷² Thus, Zaccaro (1996 and 1999), McGee (1999) and Graen (1999) all support the notion that in large complex organisations such as the CF, social complexity increases from lower to higher levels of leadership. This means that social competencies have to be nurtured and developed from the outset of a leader's career in order to deal effectively with the ever-increasing complexity that leaders encounter as they advance from tactical through operational to strategic levels of military leadership.

Complexity, however, can be attributed to a number of other factors. It can result from the interaction of the social environment, the operational situation or the organisation it

⁶⁸ Ibid; and, Zaccaro Models 362.

⁶⁹ McGee 225.

⁷⁰ Ibid 226.

⁷¹ Ibid

⁷²George B. Graen et al. "Challenges and Implications for Training." Out-of-the-Box Leadership: Transforming the Twenty-First-Century Army and Other Top-Performing Organizations. ed. Hunt, James G. et al. Stamford, Connecticut: JAI Press Inc., 1999. 240.

self.⁷³ All of these considerations have the potential of increasing complexity and hence the challenge of military leadership across the spectrum from tactical to strategic levels of leadership. McGee et al (1999) state that dealing with this complexity in military organisations does not normally “spring full blown into being” until after an individual’s first 17 to 18 years of service.⁷⁴ In spite of this, a key observation in their research indicates that the potential to be effective at the strategic or executive level is closely related to cognitive abilities developed early in a leader’s career.⁷⁵ Although they suggest that lower and mid-level leaders do not require cognitive skills to the same degree as top levels; they argue that it is important that such skills be identified and developed in the early years of military service, in order to maximize the potential for strategic leader development and to adequately prepare the future senior leaders.⁷⁶

Complexity can also be viewed in terms of the nature of conflict, specifically when accounting for highly technical and information centric military processes that characterize modern warfare, and the broad array of conventional to asymmetric operations now commonly being undertaken by western militaries.⁷⁷ McGee et al (1999), for instance, state that as the nature of conflict changes, the variety and nature of missions also changes. This implies that along with conventional operations, operations-other-than-war will also become the norm.⁷⁸ Increasingly therefore, junior and mid level officers and non-commissioned members are forced to deal with some of the same environmental complexities associated with more senior levels. Young officers and soldiers in Bosnia, for instance, must consider

⁷³ Graen 240.

⁷⁴ McGee 235.

⁷⁵ Ibid

⁷⁶ Ibid 236.

⁷⁷ Ibid

⁷⁸ Ibid

the political ramifications of the decisions they make when confronted by belligerents attempting to rekindle ethnic rivalries. In this situation, highly developed social competencies such as negotiating, behavioural flexibility and communication skills, become critical for those personnel attempting to resolve such problems. Another example stems from the recent deployment of the Canadian infantry battalion group to Afghanistan. Within this setting, the Battalion Commander has not only operated at the tactical level of leadership, say when leading his unit in combat; he, as the senior Canadian representative within the Afghanistan Theatre of Operations, also had to function at the operational level of leadership, especially when consideration had to be given to the relationship of the battalion to other coalition members and the establishment of Canadian rules-of-engagement. Moreover, he also had to simultaneously operate at the strategic level with National Defence Headquarters in Ottawa. Given such examples, there is a clear need for the development of greater cognitive and social competencies much earlier in an individual's military career and at the lower and mid levels of leadership than at any time in the history of the CF.

The increased complexity associated with the types of contemporary operations being undertaken, has established an explicit requirement, for personnel at all levels of leadership, to develop individual cognitive and social competencies. Thus, not only must the cognitive and social leadership skills required by senior military leaders be initially fostered at lower levels of leadership they are also becoming increasingly necessary for contemporary military forces across all levels of leadership.⁷⁹

Yukl (1999) confirms this proposition, stating that in addition to technical, tactical or operational skills, military leaders must have high-level cognitive and social capacities to be

⁷⁹ Zaccaro "Social." 146-147.

effective.⁸⁰ The cognitive skills he describes are “analytical ability, logical thinking, creativity, judgment, problem solving, forecasting, concept formation and theory construction.”⁸¹ The social competencies are “empathy, social sensitivity, understanding [of] individual and group processes, awareness of subordinate strength and weaknesses, ability to communicate clearly and persuasively.”⁸² All of these competencies, he claims, can be developed through formal training, operational experience, self-development and an institutional culture and reward systems.⁸³

Conclusion

Over the years, the concept of leadership has evolved from an art form practiced by an individual, to an influence process of both leaders and followers. It exists within the context of relationships between individuals, not simply the actions of a singular leader. Leadership, as Bernd Horn said, is about a relationship that must be fostered.⁸⁴ It is not the leader that is all-important; rather, it is the interaction between both leaders and followers that defines leadership as a process. However the leader still plays an important role. It is his cognitive and social competencies that create the conditions for effective leadership within the process. Such competencies are essential for leaders throughout the spectrum of military command who must resolve complex issues. Nevertheless, in today’s changing world, complexity is a concern that leaders at all levels have to deal with, whether or not this complexity relates to a specific operational situation or some form of institutional process. To deal with these

⁸⁰ Yukl, Gary. “Leadership Competencies required for the New Army and Approaches for Developing Them.” Out-of-the-Box Leadership: Transforming the Twenty-First-Century Army and Other Top-Performing Organizations. ed. Hunt, James G. et al. Stamford, Connecticut: JAI Press Inc., 1999. 256.

⁸¹ Ibid

⁸² Ibid 257.

⁸³ Ibid 265.

⁸⁴ Horn 125.

complex issues leaders must acquire and possess a broad spectrum of skills and knowledge. Cognitive and social competencies form the most significant aspect of this requirement. These skills have to be developed early in an individual's military career and should be employed and nurtured throughout the various levels of leadership. In the end, these skills become crucial for success at the strategic level. An imbalance or weakness in either a leaders cognitive or social competencies at this the executive level, can be devastating to leaders effectiveness.

PART II - ADVENTURE THEORY AND LEADERSHIP DEVELOPMENT

Introduction

Adventure training has been conducted for decades within the CF, however, there is scant evidence regarding its true origins.⁸⁵ Nevertheless, in the Canadian Army, like the armies of Great Britain and Australia, adventure training is accepted virtually unconditionally as a valuable, although complementary, form of military training.⁸⁶ The purported benefits are multifaceted as adventure training, like physical recreation and sport, provides service personnel with an opportunity to get away from their normal routine and have fun.⁸⁷

Adventure training is also useful as a team building activity, which can raise the morale of both individuals and groups.⁸⁸ Yet ostensibly, adventure training can also develop leadership to a greater extent than simply engaging in a recreational team building activity.

Specifically, adventure training can develop qualities of soldiers required in combat. It is this that distinguishes it from merely being an extension of a CF wide sports programme.⁸⁹

A further distinction lies in the word ‘adventure’ itself. Implicitly, the term conjures up a notion of excitement, challenge and risk. Indeed ‘adventure’ is defined as “an undertaking usually involving danger and unknown risks.”⁹⁰ In other words, in this type of activity participants are exposed to a degree of physical danger or risk that exceeds simple physical

⁸⁵ The author was unable to historical delineate when adventure training first came into practice within the Canadian Forces. However, personal experience suggests that it has at least been around for over 30 years.

⁸⁶ Baillon 3.

⁸⁷ Ibid 1.

⁸⁸ Ibid 3.

⁸⁹ Ibid 1-3.

⁹⁰ Miriam-Webster’s On-line Collegiate Dictionary. Available at <http://www.m-w.com/cgi-bin/dictionary>. As of 29 March 2002.

recreation and sport, where as the latter are undertaken normally for pleasure and relaxation.⁹¹

Military adventure experts believe that by “exposing the serviceman to danger, hardship and challenge” the qualities of “loyalty, team spirit, discipline, self respect, courage, fitness, endurance, resourcefulness, adaptability and good humour,” can be developed in soldiers.⁹² Furthermore, “by strengthening self-confidence and by forcing those participating to accept responsibility and to make decisions, adventure training can be valuable for the development and training of potential leaders.”⁹³ As with civilian adventure experts, militaries like the CF, believe that leadership development can be one of the main outcomes of an adventure training expedition.⁹⁴

There is, however, no direct empirical evidence to support the claim that leadership is developed through adventure training. Most literature regarding military adventure training relies on evidence that is circumstantial and based on the perception that any challenging activity builds character and therefore leadership skills.⁹⁵ As well, there is no consensus as to the processes at work within military adventure training. The only research in this field is based solely on the study of civilian programmes. Nonetheless, this research is very relevant to the military situation, and its findings can provide a great deal of insight into the military adventure training process.

⁹¹ Ibid

⁹² Baillon 3.

⁹³ Ibid 3-4.

⁹⁴ Canada, “CFAO 9-58, Adventure Training.” Canadian Forces Administration Orders. CFAO 9-58, 14 April 1988. Available at http://www.dnd.adminfincs/subjects/cfao/009-58_e.asp . As of 23 September 2001

⁹⁵ John Hattie et al. “Adventure Education and Outward Bound: Out-of-Class Experiences that make a lasting Diference.” Review of Educational Research. Spring 1997, Vol 67, No 1. 45.

Adventure Programme Origins

The “Victorian desire for ever more demanding recreational pursuits” may have been responsible for establishing a philosophy of adventure training within the British Forces around the turn of the 19th Century.⁹⁶ Regardless, the origins of military and civilian adventure training are open to speculation. In all likely hood both types of adventure activities probably owe their genesis to World War Two and an expatriate German by the name of Kurt Hahn.⁹⁷

In 1941, he was a well known, but unorthodox, educator who had been hired by the Blue Funnel Shipping Line to devise a character building programme to save sailor’s lives. At that time in the war, many merchant vessels were being sunk in the battle of the North Atlantic. Many healthy young sailors were perishing while their elder peers somehow managed to survive the same conditions at sea.⁹⁸ Hahn suggested that the “young [merchant] sailors were dying due to a lack of confidence and life experiences.”⁹⁹ In response, he devised a programme called Outward Bound, which, in nautical parlance refers to when a ship would leave port for the open ocean. Lasting about a month, the course strove to foster “independence, initiative, physical fitness, self-reliance, and resourcefulness,” and allegedly proved to be successful in saving lives.¹⁰⁰ As a consequence, Hahn expanded the use of the Outward Bound programme and over a number of decades has established several schools in the United Kingdom and elsewhere around the world. Most of these schools remain in operation today, along with many other facsimiles that utilize similar Outward Bound

⁹⁶ British Army Adventurous Training History. Available at: <http://www.army.mod...venture/adventurous/history.htm>. As of 31 October 2001.

⁹⁷ Hattie 43-44.

⁹⁸ Ibid 44.

⁹⁹ Ibid

¹⁰⁰ Ibid

techniques. From its inception as a character-building programme, Outward Bound has spawned an immense network of wilderness and outdoor-centred adventure programmes and institutions around the world.¹⁰¹

From a military perspective, it was during the late 1950's, following both the Second World War and the Korean conflict, that Outward Bound became a formal military activity. Looking to vary training and relieve the monotony of being an occupation force in Germany, the British Army introduced Outward Bound programmes in both the United Kingdom and in Norway.¹⁰² By 1957, it was reported that British Army adventure training had been established to foster self-reliance, leadership, initiative and courage.¹⁰³ As the author of *Inside Outward Bound* states, “what better way than Outward Bound, that ‘moral equivalent to war,’”¹⁰⁴ to challenge, motivate and develop soldiers when not actually in war. The phrase ‘Moral Equivalent to War,’ coined by the American philosopher, William James, supposed that although war could be a most devastating and horrific experience the moral and interpersonal development that occurred during combat, could not be replicated elsewhere in peacetime.¹⁰⁵ Hence, it was implied that given a certain amount of challenge and risk, Outward Bound could recreate some of those same environmental conditions, which brought out the best qualities in mankind.

In 1969, given their penchant for adventure recreation, and combined with their Outward Bound experience, the British Army recognised adventure training as “an important

¹⁰¹ Brad Lee Thompson. “Training in the Great Outdoors.” *Training*. May (1991). 47.

¹⁰² Renate Wilson. *Inside Outward Bound*. Vancouver: Douglas & McIntyre Ltd 1981. 83.

¹⁰³ Henry Ricketts. “Adventurous Training – The Jewel in the Crown of Military Training or a Financial Fraud?” *The Royal Engineers Journal* . Vol 108, No 1, April 1994. 319.

¹⁰⁴ Wilson 108. (“Moral equivalent to war” is “...a phrase coined by the American philosopher William James and appropriated by Kurt Hahn.”)

¹⁰⁵ William James. “The Moral Equivalent to War.” Essay 1906. Available at <http://www.constitution.org/wj/meow.htm> As of 11 March 2002.

part [of] preparing servicemen ‘to stand up to the shocks and strains of war.’”¹⁰⁶ Canada too had subscribed to a similar viewpoint, and as with all training, the CF believe that adventure training will assist in the preparation of the “...Armed Forces for combat.”¹⁰⁷

Civilian and Military Adventure Programmes

Often referred to as adventure education, outdoor education, outdoor experiential training or wilderness experience programmes,¹⁰⁸ contemporary adventure programmes can be divided into two general categories: either wilderness-based or outdoor-centred.¹⁰⁹ While both types of programmes generally have the same common objectives, for instance team-building; wilderness-based programmes typically keep participants outdoors for extended periods, conducting challenging physical activities such as white-water kayaking. Such programmes also tend to focus on the enhancement of individual decision-making and leadership skills.¹¹⁰ Outdoor-centred programmes, on the other hand, rely on the use of permanent facilities, such as camps furnished with high rope obstacle courses, climbing walls or other props. This infrastructure is used to facilitate group objectives usually focused more on team-building and improved self-esteem.¹¹¹ Adventure training within the CF, like wilderness-based training, is normally conducted in a wilderness setting for extended periods and is based on activities like remote trekking and canoeing; and although it is focused on developing unit cohesion and morale, CF policy dictates that each adventure activity include

¹⁰⁶ British Army Adventurous Training History. Available at: <http://www.army.mod....venture/adventurous/history.htm>. As of 31 October 2001

¹⁰⁷ Baillon 3.

¹⁰⁸ Hattie 44; and, Friese, G. et al. “The wilderness Experience Program Industry in the United States: Characteristics and Dynamics.” *Journal of Experiential Education*, 21(1), (1998) 40

¹⁰⁹ Richard J. Wagner et al. “Outdoor Training: Revolution or Fad.” *Training Development Journal*. March (1991) 53.

¹¹⁰ Wagner 53.

¹¹¹ Ibid 51.

elements of navigation, survival training, planning and leadership.¹¹² Thus, CF adventure training approximates more closely the wilderness-based model. Nonetheless, outdoor centred programmes should not be discounted, as they too share many of the same characteristics of adventure training within the CF. Because of these commonalities, civilian adventure programme research can be used as a basis for the study of military adventure training, and more specifically, how such activities contribute to the development of transferable leadership skills.

Adventure Programme Characteristics

An analysis of adventure training must rely on the expanding body of civilian based adventure programme research. Such research, like leadership research, has been approached from many different perspectives. One approach is to look at the interaction of programme characteristics.¹¹³ For instance, McKenzie (2000) identified six categories of adventure programme characteristics, which contribute to adventure programme outcomes.¹¹⁴ Hattie et al (1997) identified two general categories, both of which encompass similar types of characteristics as those described by McKenzie.¹¹⁵ Four broad categories have been selected from the above literature, which appear to have the greatest influence on programme outcomes. These are the participants, the physical environment, the programme activity and the review process. To varying degrees, all of these categories, and their associated programme characteristics are necessary for conducting successful adventure training.

Having an awareness of what these characteristics are and how they impact upon programme

¹¹² Canadian Forces. "CFAO 9-58, Adventure Training." Canadian Forces Administration Orders. CFAO 9-58, 14 April 1988. Available at http://www.dnd.adminfincs/subjects/cfao/009-58_e.asp . As of 23 September 2001

¹¹³ Marcia D. McKenzie. "How are Adventure Education Outcomes Achieved?: A Review of Literature" Australian Journal of Outdoor Education, Vol. 5. 1 (2000). 19

¹¹⁴ McKenzie 20-24.

effectiveness will provide a good basis for understanding processes, which underlie adventure training.¹¹⁶

The Participants

The characteristics associated with participants fill a broad spectrum from ‘group size’ to ‘participant age.’ Some theorists have suggested that groups of between 7-15 participants are large enough to generate “diversity and conflict” and small enough to limit cliques and allow conflict resolution.¹¹⁷ Other researchers have focused on the idea of using the ‘group’ as a vehicle to understand the needs of others. They have stressed that this is the programme characteristic most valued by participants.¹¹⁸ Still other research, according to McKenzie (2000), “found that developing personal relations with others influenced both participants’ personal and social development.”¹¹⁹ Thus, there is a broad range of group characteristics available to evaluate adventure programmes, but the one that is the most relevant is group interaction from a social perspective. This emphasis on group relationships is also typical of a transformational leadership environment.

Individual participant effects on programme outcomes are characterized by “age, gender, background and expectations.”¹²⁰ According to Hattie et al (1997), the average age of participants showing the greatest programme effect was 22.3 years. At this age, participants are the most receptive to the type of learning experience that an adventure programme can generate.¹²¹ This stems in part from the participants being old enough to have willingly partaken, but not too old to have already learned the lessons forthcoming from the

¹¹⁵ Hattie 44.

¹¹⁶ McKenzie 19-20.

¹¹⁷ Ibid 23.

¹¹⁸ Ibid

¹¹⁹ Ibid

¹²⁰ Ibid 24.

¹²¹ Hattie 51.

programme.¹²² In terms of gender, Hattie et al (1997) found no significant difference for programme effects, as outcomes were equally positive for both males and females.¹²³ Likewise, no significant variations in effects were found based upon differing participant backgrounds. Although some theorists suspect that past experience can impact upon a participant's attitude. This in turn might influence the effectiveness of the experience. In fact, a participant who arrived with 'high expectations' was thought to provide the necessary impetus for him or her to derive the most benefit from a programme.¹²⁴

In summary, research shows that relatively small groups of no more than 15 young male and female participants in their early 20s, who willingly participate in the adventure programme, whether wilderness or outdoor based, will show the greatest results in terms of positive programme effects.

The Programme Environment

The adventure programme's social and physical environment is one of the most significant characteristics to impact adventure programme effectiveness. This is because a new and unfamiliar setting will generate uncertainty, challenge, risk and ultimately a degree of stress among participants that is usually unavailable in their normal home or working environment.¹²⁵ Clements et al (1995) state that 'risk' forces participants to become engaged, feel real emotions, deal with their own strengths and weaknesses, develop new approaches to problem solving and experiment with interpersonal relations.¹²⁶ Hattie et al (1997) report that a 'wilderness' setting can provide the most advantages for producing

¹²² Ibid 58-60.

¹²³ Ibid 61.

¹²⁴ McKenzie 25.

¹²⁵ Australian Army. Chapter 2. Page 5-7.

¹²⁶ Christine Clements et al. "The Ins and Outs of Experiential Training." Training and Development. February (1995) 53

positive programme outcomes, in terms of a range of measured effects such as leadership, self-concept and interpersonal behaviours.¹²⁷ This, according to McKenzie (2000), is a result of a state of “dissonance” that is created among participants by the novel and extreme nature of the wilderness setting.¹²⁸ It is in overcoming this dissonance that participants enhance their self-awareness and develop new self-concepts regarding leadership behaviour.¹²⁹ Moreover, although many settings may lead to the same types of benefits, the wilderness environment imposes “natural consequences,” or rules, which are easier for participants to accept and follow compared with, for instance, an urban environment where participants would have to be artificially constrained because of inevitable interactions with non-participants. All of these features provide an absolutely real challenging experience within which individual and group leadership behaviours can be developed and practiced.

One other characteristic relates to time and space. If the selected wilderness setting is not sufficiently isolated from other normal environments in terms of distance and duration, the potential to generate a state of dissonance within a group may be attenuated. This could result from the ability of participants to seek both emotional and physical support from outside the programme group. Thus, the potential of leaders and followers to interact in the resolution of complex issues inherent within adventure scenario will not materialize. As a consequence, a programme that has not created the right environment may not evoke the types of outcomes expected in terms of self-awareness and interpersonal development, which have been advocated within both transformational and executive leadership theory.

On balance, therefore, wilderness-based programmes, and to a lesser extent outdoor-centred programmes, use the environment to establish a context of risk, challenge, adversity

¹²⁷ Hattie 62.

¹²⁸ McKenzie 20.

and uncertainty. This is an absolutely crucial characteristic for adventure programmes and it creates the necessary learning experience required to foster leadership development.

The Programme Activity

The importance of the selected programme activity is of equal, if not more, value than the environment when accounting for programme effectiveness. Outdoor-centred programmes, in particular, rely a good deal more upon the type of activity to generate outcomes, than relying upon a unique physical setting.

Programme activities can be described as the main objective or task that participants strive to achieve or overcome during a programme. As with the environmental characteristic, the selected activity is also responsible for generating challenges and risk, which participants must overcome. In the process of overcoming these challenges, “dramatic, spontaneous, intense experiences” will result that can have an impact on the development of leadership competencies.¹³⁰

McKenzie (2000) indicates that there are numerous adventure activities from which positive outcomes, such as increased self-efficacy can be derived. However, she stresses that the qualities of the activity are more important determinants of programme effectiveness, than the activity itself¹³¹. One quality might be the degree of familiarity a group has with the selected activity. For instance, an infantry platoon conducting a wilderness trek might not find such an activity very demanding or stressful. Therefore, the activity must be tailored to ensure that enough of a challenge is incorporated commensurate with the group’s technical abilities. Thus, given an appropriately conceived and challenging activity, the state of

¹²⁹ Ibid

¹³⁰ Ibid 20-22; and, Paul Dainty et al. “Clarifying the Confusion: A Practical Framework for Evaluating Outdoor Development Programmes for Managers.” Management Education and Development. Vol 23 Part 2 (1992). 115

dissonance described earlier, is further compounded.¹³² Either completing the task or mastering the technical skills of the activity then overcomes this dissonance. In so doing, the programme effect on participant outcomes is a potential increase to cognitive capacities, trust, social responsibility, self-confidence and self-esteem, all of which are as important components of leadership.¹³³

Activities, according to Dainty et al (1992), can be described on a continuum from those that demand very little structure and organisation (loose structured activities), to those that are highly prescribed (tight structured activities). Loose activities are flexible, not overly prescribed and have broad learning objectives; for example, a search and rescue activity, where participants are only told what their task is, not how to complete it. Tight activities, on the other hand, have more structure, demand more technical skill and as a consequence have narrower developmental objectives; for example, rock climbing, which requires considerable technical skill and instructor control. Activities at the tight end can enhance “broad skill” outcomes. These are “...the most complex people management skills,,” such as “...leadership and team building skills, skills of implementing change, motivating others, and coping with uncertainty and ambiguity.” Loose activities, it is suggested, are better for developing self-awareness and interpersonal skills, both of which are important aspects of transformational and executive leadership theory.¹³⁴

Mountaineering, trekking, rafting, and sailing are some of the most common examples of wilderness-based activities that can fall within both the loose and tight activity spectrum. Outdoor-centred tasks might include negotiating high-rope obstacle courses, rock-climbing

¹³¹ McKenzie 20.

¹³² Ibid 20-21.

¹³³ Ibid 20-22.

¹³⁴ Dainty 111,118.

or specific group problem tasks, such as having to cross a fast flowing river without a boat. Here too, the activities span both the loose-tight spectrum. Ultimately, according to McKenzie (2000), theoretical research suggests that activities, which are “holistic,” requiring participants to use their “...physical, mental and emotional...,” faculties to overcome the unique challenges of the activity, have the greatest potential to generate positive outcomes relating to leadership development.¹³⁵

The Review Process

The most important characteristic of adventure programmes, both wilderness-based and outdoor centred, according to Dainty et al (1992), Hattie et al (1997) McKenzie (2000) and Wagner et al (1991) is what can be termed the review process. Programme characteristics associated with the review process refer to the act of individual self-reflection both during and after an activity. Self-reflection equates to metacognitive thinking. As such it is a critical competency required for dealing effectively with complex cognitive issues at the strategic level of leadership. However, it is also essential for enhancing the overall adventure experience by making internalizing and making sense out of what has transpired within the programme.

Acts of self-reflection within adventure programmes are often mediated through a facilitator or other feedback mechanism, such as a debrief or in military parlance a ‘hot-wash.’¹³⁶ The review process, according to Dainty et al (1992), exists on a continuum of ‘process intensity.’¹³⁷ This degree of intensity corresponds to the amount of individual feedback individuals receive concerning their behaviour in the programme. Programmes that emphasize high intensity processing are able to stimulate more specific and personal self-

¹³⁵ McKenzie 20-21.

¹³⁶ Dainty 109.

reflection. Programmes that are characterized by low intensity processing sessions draw more general outcomes from the individuals or group involved.¹³⁸

Review processing, itself, can be explained using the theory of experiential learning. This is based on Kolb's four-step model of learning and cognitive growth. The four steps are divided into two continuums: the concrete-abstract, which describes how individuals gather information from their surroundings and the reflective-active, which describes how individuals process this information.¹³⁹ Processing and the associated facilitation, therefore, causes participants to "internalize meaning from an adventure education experience."¹⁴⁰ Reflection can occur individually without any prompting, for instance in low process intensity programmes. However, results relating to leadership development are greatest when experiences can be discussed through facilitation. Such action involves a leader or instructor drawing parallels between the programme experience and the participant's normal life, such as the style of leadership used during a particular aspect of the programme. This represents higher intensity processing. Another method relies on the establishment of a preconceived metaphorical framework to connect the challenges of the experience with specific challenges in the participant's daily life.¹⁴¹ Hence, the entire act of the review process is used to foster a deeper understanding of the participant's own behaviour and how the group has perceived this behaviour.¹⁴² In a metacognitive sense it also helps individualsto

¹³⁷ Ibid

¹³⁸ Ibid

¹³⁹ George Atkinson and Patricia Murrel. "Kolb's Experiential Learning Theory: A Meta Model for Career Exploration." *Journal of Counselling and Development* Vol 66 April (1988) 375. (In the first step, concrete-experience, the individual reacts immediately and intuitively to an experience. Next, in the reflective-observation step, the individual considers their reaction to the experience objectively. In the abstract-conceptualization step the individual evaluates the experience rationally and generates new ideas about the experience. Finally, in the active-experimentation step, the individual tests the new concepts.)

¹⁴⁰ McKenzie 22.

¹⁴¹ Ibid

¹⁴² Dainty 118.

reflect upon their cognitive competencies, specifically in relation to how they resolved complex issues during the adventure activity.

The review process also helps to bridge the gap between the adventure training environment and the individual's normal living and work environment.¹⁴³ In this regard facilitators become intimately involved by ensuring that specifically stated objectives of the activity are constantly being reinforced, whether for example, the objective be the enhancement of cognitive and social competencies or team building. One method might be to have each participant identify three strengths and weaknesses of their leadership style followed by a discussion could foster a goal of enhanced leadership.¹⁴⁴ "Individuals may well understand different leadership approaches intellectually, but unless they have a degree of understanding of their own style and the reactions of those around them, any learning may be ephemeral."¹⁴⁵ Hence, individual processing ensures that participants continually reflect upon their experiences in order to develop enhanced self-awareness and metacognition, which was shown to be a fundamental aspect of effective executive leadership. It is only in this way, according to Dainty et al (1992), that programme objectives and outcomes can be achieved.¹⁴⁶

Adventure programme characteristics related to participants, the physical environment, the programme activities and the review process, are important determinants of effective adventure programme outcomes. Having awareness of how these characteristics impact on the intended programme is an important aspect of programme design. Such knowledge can also provide useful guidance for structuring military adventure training and will ensure the

¹⁴³ Wagner 54.

¹⁴⁴ Dainty 113.

¹⁴⁵ Ibid 112.

¹⁴⁶ Ibid 117-118.

right outcomes are achieved in accordance with specified programme objectives such as leadership development.

Leadership Outcomes and Skill Transfer

As stated earlier, there has been a tendency for individuals to rely more on anecdotal evidence than academic research when discussing the benefits of adventure programmes, particularly in terms of developing leadership skills.¹⁴⁷ For example, top executives from major US corporations were quoted as having raved about their outdoor experiences and the positive effects such programmes have had on their personnel.¹⁴⁸ Typically, anecdotal literature expresses “the view that outdoor programmes are good things for people.”¹⁴⁹ Notwithstanding such statements, there is a body of research that suggest adventure programmes can have both a positive and long lasting effect on individual participants, particularly in terms of developing leadership competencies.¹⁵⁰

As far back as 1974, and possibly earlier, theorists have suggested that civilian adventure programmes can assist in developing personal leadership qualities.¹⁵¹ It was thought that adventure programmes, such as Outward Bound, could challenge individuals to realize both their strengths and weaknesses. This would enhance self-awareness and develop self-confidence; it would also increase an individual’s sensitivity towards the needs of others and break down social barriers. Altogether, it was thought that the programmes would motivate young people to become leaders, whether at work or elsewhere.¹⁵² Indeed, Outward Bound

¹⁴⁷ Wagner 51; and, James T. Neill, and Garry E. Richards. “Does Outdoor Education Really Work? A Summary of Recent Meta-Analyses.” *Australian Journal of Outdoor Education*, 3(1), (1998). 1

¹⁴⁸ Wagner 51.

¹⁴⁹ Neill 1.

¹⁵⁰ Hattie 77.

¹⁵¹ Kenneth Roberts et al. *The Character Training Industry*. Devon: David and Charles Newton Abbot, 1974. 64.

¹⁵² Ibid 70.

programme literature claims that personal development such as: self-knowledge, tenacity, teamwork, leadership, self-reliance, acceptance of responsibility and the ability to transcend self-imposed limits would be achieved.¹⁵³ There are in fact numerous similar claims by almost all providers of adventure programmes. However, rarely do they support this information with analytical arguments or empirical evidence. The overall consequence is that this type of literature is theoretically weak and supported only by anecdotal reports. It, therefore, adds little concrete understanding of adventure programmes and how they foster the development of leadership competencies.

In contrast however, Neill and Richards (1998) report that empirical research is growing within the field of adventure programmes. In a review of several fairly recent meta-analysis studies,¹⁵⁴ which examined adventure programme outcomes, they concluded that adventure programmes do have positive and long lasting effects in terms of improving a broad range of leadership competencies.¹⁵⁵ The most comprehensive of these studies, Hattie et al (1997), examined “the effects of adventure programmes on a diverse array of outcomes, such as self-concept, locus of control and leadership.”¹⁵⁶ Most notably, they found that adventure programmes “stimulate the development of interpersonal competence,” a “fundamental aspect of leadership,” and which corresponds directly to Zaccaro’s (1996) integrated theory of executive leadership discussed earlier.¹⁵⁷ They also concluded that there was compelling evidence that leadership skills were transferred back to the participant’s normal work

¹⁵³ Outward Bound International Mission Statement. Available at: <http://www.outward-bound.org/mission2001.htm> . As of 31 March 2002.

¹⁵⁴ Neill 1,3. (“Meta-analyses report results in terms of ‘effect sizes’ (ESs). An ES, as utilised in the [Hattie et al (1997) study] is a measure of ‘how much’ difference there is between peoples’ rating [of] themselves at two different points in time. In other words the ES indicates the *amount of change*. An ES of 0 means no change, a negative ES means a lowering of perceptions, while a positive ES means an enhancement of perceptions. ESs are proportional, so an ES of .40 represents twice as much change as an ES of .20.”)

¹⁵⁵ Ibid 4-5.

¹⁵⁶ Hattie 43.

environment.¹⁵⁸ In contrast to other research, such as Stolz (1992), which failed to show positive changes in leadership skills,¹⁵⁹ Hattie et al (1997) found increased effects in terms of greater conscientiousness, better decision-making, improved teamwork, improved organisational ability, improved time management and finally better cooperation and interpersonal communication.¹⁶⁰ Furthermore, they found that short-term gains had actually compounded at the point of long-term follow-up when individuals were assessed several months following the programme in their normal living and work environments.¹⁶¹

Other research, such as Burnett (1994) reported that adventure programmes “enhance self-esteem and complexity of thought.”¹⁶² Ibbertson and Newell (1998) found that adventure training provides life long development of emotional intelligence and social behaviour.¹⁶³ They also noted that under stress, interpersonal skills, such as listening and following, were improved. Teamwork, esprit and trust were also positively influenced.¹⁶⁴ Finally, McKenzie (2000) reported that adventure programmes enhance participant interpersonal skills.¹⁶⁵ These results correspond to Zaccaro’s (1996 and 1999) theories of senior leadership with regards to cognitive capacities, buttressing the linkage between executive leadership theory and the role of adventure training in developing the skills

¹⁵⁷ Ibid 66.

¹⁵⁸ Hatres-0. BDC BT/TT0 1 Tf0.90 205.3201 Tm(158).00301 Tw 12 0 0 12

transformational leaders require to deal with complex problems within complex organisations.¹⁶⁶

In all, there is a considerable body of well qualified research, which provides extremely solid evidence that leadership competencies, in particular the cognitive and social skills essential for senior levels of military leadership, can be developed through adventure programmes. Furthermore, there is concrete proof that these same competencies remain effective when later transferred to an individual participant's normal environment.

Conclusion

Contemporary civilian based adventure programmes share many features of military adventure training. Both types of programmes generally involve highly motivated young people grouped together in an outdoor or wilderness setting whose objective it is to accomplish a specific task or goal.

thinking and behaving. Ultimately, the measure of an effective programme lies in its ability to generate a certain amount of self-reflection directly related to the participant's experiences. To accomplish this most research indicates that a review of the experience or a feedback session must be incorporated into the adventure programme, either during or after the activity. The final result is that the participant gains a new self-awareness regarding their cognitive and social competencies. These competencies, in particular interpersonal competencies, become extremely important at ever-higher levels of leadership in order to deal with the increasing social complexity associated with senior military leadership.

PART III - LEADERSHIP DEVELOPMENT AND MILITARY ADVENTURE TRAINING

Introduction

There are many factors that must be considered when planning adventure training, issues that often cause problems for those attempting to conduct an expedition or programme. One issue is that leaders and staffs often approach adventure training from the context of passing the "Globe and Mail Test." Such concern may stem from the question, will this, otherwise civilianised form of recreation, be palatable to the Canadian taxpayer? Part of the problem originates with the weaknesses inherent in adventure training policy. Authorities responsible for approving adventure training do not often understand the real value of properly conducted adventure training, especially in terms of developing effective leadership skills.

Furthermore, the CF policy, which states that

“[t]he aim of adventure training is to provide members of the CF...with the opportunity of participating in useful training of a hazardous nature..., with a view to developing qualities of self discipline, leadership, initiative, integrity and courage,”¹⁶⁷

has never been validated by an objective analysis. Nor are the requirements for the conduct of effective adventure training satisfactorily outlined, especially in terms of prescribing the means by which leadership development should be fostered during an expedition. As well, the CF policy, which explicitly endorses hazardous training, is in other ways risk averse because of the contradictory nature of the safety standards for different types of activities. Some activities such as white water canoeing, for instance, have detailed guidelines with regards to minimum individual watermanship standards, whereas other activities, like sailing, have none. Such inconsistency may serve to limit the scope of adventure training outcomes

¹⁶⁷ CFAO 9-58

for some types of adventure activities, because the element of risk could be unnecessarily, yet purposely, eliminated. Correspondingly, individual participants are not exposed to the stress that is needed to make their adventure experience meaningful to their development.

However, adventure programmes, with an appropriate level risk incorporated into their activities, do impart a level of stress on both leaders and followers. These programmes also have the potential to develop leadership skills under conditions that cannot be more effectively replicated anywhere else, except in combat or other real operational circumstances. This is achieved because adventure training provides the opportunity for junior leaders and their followers to practice and develop their leadership relationship. In particular, a properly conceived programme can generate experiences in which leaders will be compelled to experiment with the transactional-transformational extremes of the Full Range of Leadership Model. In so doing, they will also develop greater self-awareness and increased understanding of how to resolve complexity within their social setting, which is a critical aspect of senior leadership.

Leadership Development Through Adventure Training

As discussed in Part I, the transformational-transactional leadership paradigm is an effective model for military leadership and which has tremendous utility in meeting the demands of an organisation like the Canadian Army in today's complex world. Likewise, it was shown that the development of both cognitive and social competencies is an indispensable aspect of gaining the skill necessary to be an effective transformational leader, most notably at senior levels of leadership. In Part II of the paper civilian based adventure programme research provided a relevant basis from which to study military adventure training. Owing to the similarities between military and civilian adventure programmes, an

analysis of the research dealing with the characteristics and outcomes of effective civilian based adventure programmes concluded that given the right combination of factors, adventure programmes would contribute to the enhancement of leadership competencies, specifically in the areas of improved capacities to deal with cognitive and social complexity such as decision-making, teamwork, cooperation and interpersonal communication. Furthermore, greater self-awareness or metacognitive capacities were developed, which again was considered to be an essential component of programme effectiveness. It was also determined that adventure programme outcomes would result in a modification of participant cognitive and social competencies. In turn, these competencies could be successfully transferred to an individual participant's normal working environment. Hence a concrete linkage between required leadership competencies and adventure programmes was made.

Military adventure training offers an ideal environment for individual leaders and followers to both practice and develop their leadership relationships. By removing personnel from their normal environment, assigning them a challenging task or objective and by exposing them to risks in a new and unfamiliar setting, personnel are forced to develop new strategies in order to accomplish their assigned task or training objective, as well as having to deal with the intricacies of motivating, inspiring and influencing others in the group to achieve their common goal.

The disassociation from the normal military environment, which occurs in adventure training, can serve to temporarily suppress the hierarchical nature of a military group and allow both leaders and followers to experiment with different roles and behaviours. The establishment of this leader follower relationship is an important aspect of transformational leadership, and one way adventure training can profit from this theory is to allow participants

who normally fulfill leader roles to assume the role of a follower and vice a versa. This can provide considerable insight into how the group functions and the individual leader may also gain valuable knowledge about how he or she is perceived by the group. Such interaction may serve to either initiate or further refine an individual's ability to be a transformational leader.

Given that an adventure training activity has been appropriately conceived, the leaders of an expedition would choose either transactional or transformational type responses from Bass' (1998), Full Range of Leadership Model to deal with the problems generated by the inherent risk of an adventure scenario. Transactional leadership, according to Bass (1998), would tend to be characterized by a more rapid and unilateral decision making process given a situation in which followers were under considerable duress. In this sense, a leader response to the immediate needs of followers would be more directive in nature. The transformational leader, on the other hand, would have established a rapport with their followers through which they would collectively resolve the crisis, guided by the leader's charisma, ability to inspire and concern for the followers needs.¹⁶⁸

If for instance, in a hypothetical situation, such as at the end of an exhausting, wet and mosquito filled day on a wilderness canoe trip, a group finds itself faced with a choice of either having to run a set of difficult and possibly life threatening rapids or alternatively tackling an extremely lengthy portage in order achieve the day's objective. A more transactional leader would probably make a unilateral decision relatively quickly because of the urgency of the situation and the requirement to immediately attend to the short-term needs of the followers. Such a hasty response would not be made with the benefit of a thorough appreciation of the situation. Individuals within the group might have been able to

make relevant contributions to the decision making process. As well, dissent within the group might also come to light, for which the transactional leader is ill equipped to deal. Some might want to end their discomfort and risk the quicker but more dangerous option of negotiating the rapids, while others might have thought the risk of doing so was too great. Thus, the less positive consequences of a transactional type decision may not readily come to light, but upon guided reflection an individual could learn from their experience.

In contrast, a more transformational leader response, would seek to rise above the immediate short-term concerns of the followers and look at the issue in the context of the broader situation.¹⁶⁹ Although the group could be suffering at that particular moment, the long-term consequences of running the rapid could be more harmful to the group if the level of danger was underestimated. Therefore, the transformational approach would involve the followers in the decision making process. Such a leader would not arbitrarily impose their will on the group, rather by employing both cognitive and social competencies, would seek to stimulate and motivate their followers into finding a novel solution to the problem. In part, this decision could have been bolstered through the transformational leader's earlier articulation of how such circumstances would be tackled. In other words, a truly transformational leader would have established a common 'vision' at the outset of an expedition, which would have established the leaders intent regarding such challenges.

In reality, both leaders and followers placed in the adventure situation, described above, would react using a full range of techniques and behaviours. At times this might be characterized as more transactional or transformational. What is important, however, is that the military adventure training environment is real and it forces individuals to act. This

¹⁶⁸ Bass 29-47.

¹⁶⁹ Ibid 42.

process in itself will cause leaders and followers to think differently and experiment with new behaviours. Coupled with appropriate feedback, whether facilitated or based on peer or subordinate review, individual followers and leaders can garner valuable insight into their own actions. From this experience, greater self-awareness will result, which will lead to a further development of an individual's leadership competencies.

Approaches to Military Adventure Training

Given the value of adventure training in developing leadership skills, it is important that these programmes be conducted properly. There are a number of ways a military force could go about doing this. Some, like the United States Armed Services, provide absolutely no support for adventure training, preferring instead to focus on their core warfighting requirements.¹⁷⁰ Other militaries like the British and Australian Armies, are strong advocates of adventure training, although, each uses a somewhat different approach.

Adventure training within the CF is virtually in a state of arrested development. Although, it receives tacit support from senior leadership, at least in terms of maintaining a policy,¹⁷¹ realistic programmes aimed at developing specific outcomes are not part of national policy guidance.¹⁷² Consequently, CF personnel are not maximizing the benefits of adventure training. Furthermore, the allocation of adventure training resources is inconsistent across CF Commands. Resources are not applied to ensure long term programme sustainability and do not facilitate a culture of well-qualified adventure training practitioners.

¹⁷⁰ Bruce Hawkins. "Review of Allied Forces Adventure Training." Service Paper prepared for Canadian Directorate of Army Training, 12 December 2001. 2-3.

¹⁷¹ Both a revised CF and LF adventure training policy are due to be promulgated sometime in 2002.

¹⁷² E-mail correspondence between Major Nigel Parker, NDHQ, J7-5 (Adventure Training Desk Officer) and author concerning the revised Canadian Forces Adventure Training Policy.

In the CF, responsibility for adventure training is normally delegated to the lowest possible level.¹⁷³ In the Army, for instance, units, in particular field units, are solely responsible for planning and conducting their own adventure training programmes and from within their overall annual funding allocation. Units are therefore encouraged, but not necessarily directed, to include adventure training in their Yearly Training Plans. As a result, adventure training has to compete for both time and resources, because of an ever-increasing operational tempo and reduced budgets. As a consequence, adventure training is often one of the first activities to be dropped from a unit's discretionary activity, and when it is conducted very little consideration if any is given towards achieving any particular outcome, whether it be as simple as improving morale or as complex as developing leadership skills.

There are also geographical limitations imposed on adventure training, in particular by the Canadian Land Forces. For example, adventure training that takes place outside the boundaries of a respective Land Force Area typically requires that Area Commander's approval.¹⁷⁴ As well, all adventure training must normally be conducted within the territorial boundaries of Canada, unless a unit is deployed outside of the country or receives special permission.¹⁷⁵ This is unfortunate because travel to foreign environments is an important component of the adventure experience, which is not encouraged in the CF.

Another aspect of adventure training within the CF is that there are no permanent programmes, infrastructure or equipment available for personnel to use, except what local units, formations or bases wish to establish on their own. The prerequisites to lead and participate in a specific adventure training exercise are left to the discretion of the authorizing

¹⁷³ Baillon 5.

¹⁷⁴ Canadian Land Forces. "LFCO 23-2 - Adventure Training." Land Force Command Order 23-2

¹⁷⁵ CFAO 9-58

officer, usually the Unit Commanding Officer.¹⁷⁶ Having a specific qualification or certification is not necessarily required, although military equivalents, such as scuba diving and mountaineering have some transference,¹⁷⁷ (civilian compared to military freefall parachuting is too different to meet this requirement). There are clubs that sometimes provide the expertise to both lead and instruct specific adventure activities, for example sailing or canoeing, but experience has shown that clubs are transient, depending upon the interests of individual club members, they cannot be relied upon to provide consistent and long term support to adventure training. Maritime Command had at one time an Adventure Training Leaders Course,¹⁷⁸ however, for unknown reasons this programme was curtailed. As a result of all of the above, adventure training activities are planned with a heavy reliance on civilian organisations.

says Major Baillon in his paper titled A Better Approach to Adventure Training in the CF.¹⁸¹

The upshot is that CF authorities find it difficult to approve adventure training because of the problem of confusing recreation for adventure. For example, an arguably hazardous activity such as white water rafting, might be rejected based purely on a perception that it is a form of recreation, especially if conducted as a one-day excursion with a civilian company.

However, rafting a platoon down a wilderness river over a two-week period is definitely adventure training, and it should not be rejected based solely on the perception that the selected medium represents physical recreation or sport. The real criteria for evaluating the legitimacy of the proposed activity include a broader range of considerations characteristics described in Part II, relating to the participants, the selected environment, the activity and the review process.

Thus, adventure training within the Canadian Land Forces, although relatively simple to initiate and conceive, currently has serious limitations that should be corrected if the benefits of this type of training are to be realized. Moreover, without adequate scope to provide a unique environment, with a challenging activity and a certain amount of risk, the conditions cannot be set for leadership development.

The British Forces refer to adventure training as:

“a form of outdoor training for Service personnel requiring participation in challenging pursuits, by inference those which contain and ever present risk to life and limb, and calling for, from those taking part, leadership and some or all of the qualities of fitness, physical and moral courage, initiative, powers of endurance and interdependence.”¹⁸²

¹⁸¹ Baillon 2.

¹⁸² British Army Adventurous Training Definition. Available at: <http://www.army.mod...venture/adventurous/definition.htm>. As of 31 October 2001.

This description, although vague in some respects, at least places an emphasis on leadership, for the British Army believes that “[a] key part of command is its moral component, which includes leadership.” Furthermore, British Army doctrine states that

“[e]very opportunity should be used to enable officers and non-commissioned officers to develop their leadership potential through study and practical activity both military and non-military, such as adventurous training, sport and battlefield tours.”¹⁸³

The British, like the Canadian military, have an expectation that individuals will have the occasion to both practice and experience leadership within the context of an adventure training activity; and they have a further expectation that this understanding will be directly transferable to military experiences, although, this connection is not expressed in any great detail within either policy.

The British Forces provide substantial support to military adventure training through a tri-services programme called the Joint Services Adventurous Training (JSAT) system. The JSAT controls policy and standards for adventure training throughout the British Forces. Also, they have established a number of JSAT Centres in the United Kingdom and around the world. The centres conduct basic to instructor level courses for all of their approved adventure training activities, such as: mountaineering, trekking, canoeing, kayaking, off-shore sailing, skiing and scuba diving.¹⁸⁴ There is even a centre in Western Canada, whereas the CF have none.

British military personnel are exposed to adventure training early in their careers. Both officer and non-commissioned members receive what is called Resource and Initiative Training, during recruit basic training. For officers, this leads to a qualification of Unit

¹⁸³ British Army, Army Publication No 4 – Training. Prepared under the direction of the Chief of the General Staff, December 1996. (DGD&D/18/34/65 Army Code No 71621). 1-B-5.

¹⁸⁴ British Army Adventurous Training Activities. Available at: <http://www.army.mod...venture/adventurous/activities.htm>. As of 31 October 2001.

Expedition Leader (winter or summer).¹⁸⁵ Although British soldiers are expected to pay their part of an expedition's costs, there are both public and non-public funds available to help subsidise activities.¹⁸⁶ Furthermore, all units receive what are called Adventure Training Packs. These packs contain basic equipment that can be used on relatively short notice for local adventure training opportunities that require little in the way of preparation, and which help foster skill development in the requisite adventure activities. Ultimately, these packs can be pooled for adventure training exercises.¹⁸⁷ Units can also request centrally held packs, which contain "more advanced equipment for major expeditions."¹⁸⁸ Thus, soldiers in the British military have no shortage of opportunities to partake in adventure training, although a drawback may be their requirement to self-finance expeditions. Alternatively, this may contribute to part of the experience and challenge.

The Australian military has perhaps the most comprehensive view of adventure training, and although similar to both the British and Canadian intent, it goes much further in prescribing the conduct of adventure training. Because of this, a closer examination of the Australian programme provides a useful insight into the theory of adventure training and how it can be used to develop leadership.

The Australian military's policy on adventure training states that, "[a]dventurous training is an activity of a challenging physical and mental nature, designed to develop desirable qualities of character and/or leadership."¹⁸⁹ Reflecting the need to respond to this policy, the Australian Army has consciously linked adventure training to leadership development

¹⁸⁵ Baillon 8.

¹⁸⁶ Ibid. 12.

¹⁸⁷ Ibid. 8

¹⁸⁸ Ibid. 8.

¹⁸⁹ Australia, "Defence Organisation Policy on Adventurous Training" Defence Instructions (General). Pers B/11/98 15 Jun 98. 1.

through training doctrine. For instance, a considerable part of their military guide to adventure training, the Australian Army Adventure Training Wing Manual, is related to leadership outcomes. According to the Australian Army, military adventure training must be conducted in a manner that makes concrete changes to individual attitudes and behaviours.¹⁹⁰ This is achieved through different formalized approaches, each of which has a specific skills outcome. The first approach, used strictly by the Australian Army Adventure Training Wing, develops the technical skills associated with an adventure activity, such as kayaking or mountaineering. This approach, therefore, is used to develop instructor skills. Any other outcome, such as a change to the individual's self-awareness, is considered "purely incidental."¹⁹¹

The second Australian approach, called the "Specific Behaviour Approach," was developed for unit adventure training. As such, it is relevant to the type of adventure training that should be conducted by the CF and being discussed in this paper. It is based on achieving 'behavioural change objectives.' These objectives are derived from a unit's annual training plan, and stem from the requirement for adventure training to "develop individual and group qualities required in battle."¹⁹² The technical skills required for this approach are limited to those needed to safely conduct the specific activity. Furthermore, it is irrelevant to the behavioural change objective whether or not the training goal, such as reaching a particular mountain summit, is actually achieved. This, it is claimed, is because a negative outcome can provide an equally valuable learning experience, although they do not indicate how this can be measured.

¹⁹⁰ Australian Chapter 2 Page 1.

¹⁹¹ Ibid

¹⁹² Ibid 2.

The final approach to adventure training is called the Physical Task or Goal Approach. This is used for extreme types of high quality adventure training, which are normally beyond the scope of an individual unit's requirement or capability to mount. Although, specific goals, such as navigating the length of an uncharted wild river might be the focus of such activities, it is claimed that they still result in skill development and behavioural change.¹⁹³

There are two types of competencies that are developed in all of these approaches. The first, already alluded to as technical skill, relates to the capabilities required to participate in the specific adventure training activity, for example the physical skills needed to be able to safely kayak down a white water river. Transfer competencies, which are described as the *raison d'être* for adventure training, are those competencies that develop "leadership, courage, teamwork and character."¹⁹⁴ It is explained that these transfer competencies, such as leadership, are developed through an experiential learning cycle. This cycle is composed of four components. In the first part, the individual has the actual adventure experience. Then in the second part, the individual reflects upon these experiences. Next, generalization takes place. This allows the individual to foster a better cognitive understanding of the behavioural competencies developed and how they might relate to other aspects of their life. Finally, in the last part of the cycle, the individual transfers these new behavioural competencies to their military life and retains them in order to tackle the next real experience. This aspect of the cycle, the Australians emphasise, is what makes the structured adventure training experience worthwhile.¹⁹⁵

Finally, in order to establish the conditions from which both experiential learning and transfer competencies take effect, the Australian model stipulates that the unique qualities of

¹⁹³ Ibid

¹⁹⁴ Ibid

the training environment must be considered. Adventure training works by providing realism, risk, unpredictability and physical and mental stress, unavailable in contrived military training environments. This is because individuals are thrust into unique social and physical environments in which experience and learning take place.¹⁹⁶ Also, in addition to the activities being novel and fun, they afford the chance to engage in new behaviours in an environment, although safe, also characterized by a degree of risk.¹⁹⁷ This risk combined with the novel social setting, the Australians claim, compels individuals to develop personal-insights, coping strategies and other social behaviours, which are those competencies available for transfer to the military environment.¹⁹⁸ In summary, the Australians view adventure training as an advanced form of training that aims to replicate aspects of the combat environment at a minimal cost and in a somewhat enjoyable manner.¹⁹⁹

In summary, although the Canadian, British and Australian militaries are all advocates of adventure training they all have differing approaches to making it work. The Canadians have a weak policy and ineffective programme. The British tend to focus considerable effort to developing the technical skills for adventure activities, yet they pay little attention to the review process or facilitation and hence specific outcomes. The Australians emphasize both technical skill development and the review process. They have a well-developed training support system like the British, which is used to train individuals in the specific technical skills as well as to train adventure training leaders. However, the truly distinguishing characteristic of the Australian programme is its ability to focus on the review process and

¹⁹⁵ Ibid 4

¹⁹⁶ Ibid 5-7.

¹⁹⁷ Ibid 7.

¹⁹⁸ Ibid

¹⁹⁹ Ibid 14.

maximizing the learning of new cognitive and social competencies. It is this aspect of the Australian programme that would make it a good model for the CF to emulate.

A Programme for the Canadian Army

The CF Officer Professional Development System outlines a progressive system of four developmental periods, each of which relies upon the pillars of education, training, experience and self-development to generate results.²⁰⁰ Like Stratified Systems Theory, which was described earlier in the paper, the last three out of the four development periods are designed to correspond to the tactical, operational and strategic levels of war, in terms of where an officer's studies should be focused. The first level, referred to as 'conceptual awareness,' is used for developing the initial knowledge and skill required for entry-level officers.

One of the possible concerns with this system and its four pillars is that most formal leadership education and training in the CF is performance based. By this, it is meant that military personnel attending formal courses, in which leadership is taught, are constrained by the fact that they must interact and compete with their peers and at the same time be assessed. For example, military courses of any consequence to an individual's career, usually nominate a top student at the end of each course. This puts pressure on some students to concentrate more on the end result rather than acquiring long lasting skills and knowledge. Likewise, many training sessions either as part of a formal course or in an individual's unit can actually focus more on assessing individual performance than ensuring comprehensive skill development. Hence, the learning that takes place may not provide adequate conditions for individuals to fully comprehend leadership as a process or develop the requisite self-

awareness to internalize cognitive and social competencies required to develop leadership potential. As a consequence, these more traditional methods of leadership development are not ideal.

A similar case can be made for corps specific collective training. Leaders at all levels, but more frequently at lower tactical levels, are conditioned to behave in a specific manner when engaged in collective field training exercises. They interact with their subordinates and superiors in accordance with the customs and procedures of their service that have been engrained ever since enrolment. This makes the more traditional training environments, less than ideal for expanding the cognitive and behavioural dimensions of the leadership process. Nor do leaders and followers have the same opportunity to remove themselves from the transactional part of the leadership continuum, where more authoritarian styles of leadership are practiced.²⁰¹ This inhibits optimal self-reflection because the situational context of the military group remains unchanged from an organisational and functional perspective, regardless of whether or not the physical environment or military task has changed.

Experience-based training like adventure training, however, provides an alternative for junior officers and non-commissioned members to develop their leadership potential and without the artificial limitations of the training system. As suggested by Clements et al (1995), this is because adventure training takes place outside “normal hierarchical constraints, ... [where] people are forced to break out of their old patterns of thinking.”²⁰² Adventurous training gives both leaders and followers exposure to a new environment in

²⁰⁰ DAOD 5038-1

²⁰¹ Northouse 13.

²⁰² Christine Clements et al. “The Ins and Outs of Experiential Training.” Training and Development. February (1995) 53

which to develop the leader follower relationships and particularly improve the social competencies required in leadership.

Therefore, in order for the CF to ensure that the perception of adventure training as simply recreation or sport does not persist, and in order to maximize the potential that can accrue from adventure training, they must ensure that any revision to the national adventure training policy reflects the true nature of adventure training and how outcomes are actually achieved. As well, specific direction must be given that is very prescriptive in nature as to how to go about organizing the training to achieve specific outcomes. In this sense the guidance should draw on the results of the civilian adventurer programme research which has shown greater effects when specific programme characteristics relating to the participants, the environment, the activity and the review process are considered. Commands must be encouraged or directed to implement policies which ensures adventure training is conducted on a regular basis for those that can derive the most benefit, most notably junior personnel.

Finally, the CF must also support the revised policy with appropriate resources. Consideration should be given to establishing a series of national joint forces centres, similar to the British model. Such facilities could be located across Canada on National Defence property, but organized according to unique environment offered by each setting. For example, Petawawa could become the home of a CF wilderness canoe centre. As well, an adventure training centre of excellence should be established. Such an entity would set standards and provide programme quality control as well as the technical and soft skill training requirements for adventure training leaders and facilitators.

Conclusion

The current CF policy on adventure training is weak and it fails to recognize or prescribe a means of optimizing adventure training experiences so that the truly distinguishing aspect of this type of training, leadership development, can be achieved. Without the resources and with the policy left in its current form, adventure training in the CF has no more value than participating in most any outdoor recreation or sporting activity. However, research has shown that properly conducted adventure activities can have a meaningful impact on the leadership competencies of programme participants.

Principally, the adventure training experience, with its environment of challenge and risk, sets the conditions within which leaders and followers are forced to deal with the limitations of their own cognitive and social competencies. Under these circumstances, the participants experiment with different behaviours and practice leadership within the transactional-transformational spectrum. With appropriate feedback both leaders and followers engaged in an adventure programme can reflect upon their experience and gain new awareness about themselves and how to best tackle complex cognitive and social situations.

To accomplish this the CF must develop a new approach to adventure training, for example along the lines of the Australian Army, where adventure training is viewed as a programme rather than a training exercise. A programme in this sense implies that objectives are defined, not only in terms of achieving a physical goal, such as navigating a particular trail, but also in terms of the leadership outcomes, such as improved interpersonal communication and greater self-awareness about one's own leadership abilities. Such programmes also demand a certain prescriptive approach in order too ensure that tangible developmental outcomes are achieved.

CONCLUSION

Theorists have approached leadership from many perspectives. Some have focused on the attributes of leadership, such as trait theory, which posits a correlation between personal characteristics and effective leadership.²⁰³ Other approaches, including behavioural, situational, contingency and transactional, were developed and applied with varying results in an attempt to understand leadership effectiveness.²⁰⁴ Still, other research has led to a general consensus that leadership is actually an influence process involving a relationship between leaders and followers.²⁰⁵ Such an approach is reflected in transformational leadership theory, a recent model, which is applicable to the demands of contemporary military leadership.²⁰⁶ This approach is based on leaders transforming the attitudes of followers in order to make them conform to the leader's vision. Hence, research has advanced our comprehension of leadership to a point where it is no longer thought of as a singular leader quality. Instead, the term emphasizes the dynamic interaction of both leaders and followers in pursuit of a common objective.

Other research, such as Zaccaro (1996 and 1999), has added to our understanding of specific aspects of leadership theory, particularly with regards to the requirement for leadership competencies across hierarchical institutions like the Canadian Army. Although formally described as a skills-based approach, executive leadership theory, as it is commonly referred to, does not challenge the process view of leadership; rather it reinforces the fact that it is the leader engaged within the process who requires specific leadership skills. Executive

²⁰³ Kovacheff 4-6.

²⁰⁴ Ibid 6-12.

²⁰⁵ Northouse 4.

²⁰⁶ Kovacheff 12-14.

leadership theory asserts that at successively higher levels within an organisation, individual leaders require more acutely developed cognitive and social competencies to deal with the progressively more complex environment found at executive levels. However, increasingly at middle and junior levels, officers and non-commissioned army personnel must also acquire greater cognitive and social competencies to deal with the growing complexities of contemporary military affairs. Thus, the skills required by senior leaders, must not only be developed early in a career to ensure their development for executive level employment, these same types of skills are increasingly required at junior levels because of the complex nature of 21st Century global society.

As a consequence, it is through both transformational and executive leadership theory that the development of senior leadership competencies have been shown to occur through adventure training. Within the unique adventure setting leaders and followers practice and develop transformational leadership behaviours by experimenting with their cognitive competencies such as metacognition, analytical thought, logical thinking, creativity, judgment, problem solving; and their social competencies, such as empathy, social sensitivity, interpersonal communication, behavioural flexibility and, self-efficacy.

Adventure programmes achieve this by situating the adventure experience in an unfamiliar surrounding using an activity that is both challenging and which incorporates a significant amount of risk. Challenging activities conducted in a wilderness environment that compels leaders and followers to interact, in order to resolve complex cognitive and social problems, have been shown to be the most effective. Coupled with feedback, throughout the experience, the review process is an important enabling characteristic that assists in fostering the cognitive and social competencies through metacognitive mechanisms. Altogether these

factors establish the conditions that allow individual participants, who are fulfilling leadership roles, to modify their normal patterns of cognitive and social behaviour in order to have a more positive impact on the actions of the group. For leaders, this is accomplished by using the interpersonal skills that are characteristic of transformational leadership. In this manner participants gain enhanced self-awareness and in the process better cognitive and social competencies. These skills, which have been shown to be transferable to other environments, can also be long lasting.²⁰⁷ The significance of this is that interpersonal skills developed through an adventure experience can lay the foundation for developing the potential of future leaders and the specific leadership competencies that are required as an individual rises in rank through the Army.

Although, adventure training can develop leadership competencies required by members of Canada's Army, policies remain weak and do not prescribe an optimal means of structuring the adventure training experience so that meaningful leadership development can occur. As always, resource limitations also impact training effectiveness. This coupled with the weak policy, means that adventure training in the CF, but more specifically within the Army, will continue to have limited leadership training value on par with most recreational pursuits.

To resolve this quandary, the CF and Canada's Army must develop a new approach to adventure training, perhaps an approach similar to the Australian Army, which views adventure training as a programme rather than an exercise. A programme that implies well defined objectives, not only in terms of achieving a physical goal, such as navigating a particular trail, but also in terms of the leadership outcomes, such as improved interpersonal communication and greater self-awareness about one's own leadership capabilities. Such

²⁰⁷ Hattie 69.

programmes will require a prescriptive approach to adventure training and this will necessitate both increased funding and a new way of thinking about adventure training among Army leaders. Ultimately, properly conceived adventure training is indisputably of value for developing the potential of future Army leaders.

BIBLIOGRAPHY

Books Consulted

- Bass, Bernard, M. Transformational Leadership: Industrial, Military, and Educational Impact. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers, 1998
- Gardner, Howard. Leading Minds – An Anatomy of Leadership. New York: Basic Books, 1995
- Gardner, John W. On Leadership. New York: The Free Press, 1990
- Hollander, Edwin P. Leadership Dynamics New York: The Free Press, 1978
- Loeb, Marshal and Kindel, Stephen. Leadership for Dummies International Data Group Coy, 1999
- Montgomery, Bernard. The Path to Leadership. London: Collins, 1961
- Northouse, Peter G. Leadership Theory and Practice 2nd ed. Thousand Oaks: Sage Publications, Inc., 2001
- Out-of-the-Box Leadership: Transforming the Twenty-First-Century Army and Other Top-Performing Organizations. ed. Hunt, James G. et al. Stamford, Connecticut: JAI Press Inc., 1999
- Roberts, Kenneth, et al. The Character Training Industry. Devon: David and Charles Newton Abbot, 1974
- Rost, Joseph C. Leadership for the Twenty-First Century. Westport, Connecticut: Praeger, 1993
- Von Clausewitz, Carl. On War, ed. Michael Howard and Peter Paret, Princeton: Princeton University press, 1989
- Wilson, Renate. Inside Outward Bound. Vancouver: Douglas & McIntyre Ltd 1981.
- Yukl, Gary. Leadership in Organisations. 4th ed. Upper Saddle River, NJ: Prentice Hall, 1998
- Yukl, Gary. Leadership in Organisations. 5th ed. Upper Saddle River, NJ: Prentice Hall, 2002

Periodical and Articles Consulted

- Atkinson, George and Murrel, Patricia. "Kolb's Experiential Learning Theory: A Meta Model for Career Exploration." Journal of Counselling and Development. Vol 66 April (1988) 374-377
- Bass, Bernard M. "Leading in the Army After Next." Military Review. Vol. 78 Issue 2 Mar/Apr (1998), 46-57
- Beare, Stuart A. "Experience in Officer Professional Development: A Pillar in Peril." The Army Doctrine and Training Bulletin – Canada's Professional Journal of Army Issues Vol. 4, No 4, Winter (2001), 36-48
- Bramwell, K. et al "One Shot Wonders Don't Work: A Causal-Comparative Case Study." Journal of Adventure Education and Outdoor Leadership. 14(2), (1997) 15-17
- Clements, Christine et al. "The Ins and Outs of Experiential Training." Training and Development. February (1995) 53-56
- Dainty, Paul et al. "Clarifying the Confusion: A Practical Framework for Evaluating Outdoor Development Programmes for Mangers." Management Education and Development. Vol 23, Part 2 (1992) 106-122
- Day, David, V. "Leadership Development: A review in Context." Leadership Quarterly. 11.4 (2001) 581-613
- Friese, G. et al. "The wilderness Experience Program Industry in the United States: Characteristics and Dynamics." Journal of Experiential Education, 21(1), (1998) 40-45
- Hattie, John. et al. "Adventure Education and Outward Bound: Out-of-Class Experiences that make a lasting Difference." Review of Educational Research, Vol 67, No 1. Spring (1997) 43-87
- Ibbertson, Adrian; Newell, Sue. "Outdoor Management Development: The Mediating Effect of the Client Organization." International Journal of training Development. 2, No. 4, December 1998. 239-258
- Loos, Greg. "Toward a Practical Leadership Model and Better Leaders: Recognising, Fostering and Developing Emotional Intelligence," Canadian Forces College Review, (2001) 73-91

- Marshall-Mies, Joanne C. et al. "Development and Evaluation of Cognitive and Metacognitive Measures for Predicting Leadership Potential." Leadership Quarterly, 11.1 (2000) 135-152
- McKenzie, Marcia D. "How are Adventure Education Outcomes Achieved?: A Review of Literature" Australian Journal of Outdoor Education, Vol. 5. 1 (2000). 19-28
- Mumford, Michael D. et al. "Development of Leadership Skills: Experience and Timing." Leadership Quarterly. 11.1 (2000) 87-114
- Mumford, Michael D. et al. "Leadership Skills for a Changing World: Solving Complex Social Problems." Leadership Quarterly. 11.1 (2000) 11-35
- Neill, J. T., & Richards, G. E. "Does Outdoor Education Really Work? A summary of Recent Meta-Analyses." Australian Journal of Outdoor Education, 3(1), (1998). 2-9
- Nice, David C. "The Warrior Model of Leadership: Classic Perspective and Contemporary Relevance." Leadership Quarterly. 9.3 (1998) 321-333
- Offermann, Lynn R. et al. "Leaders, Followers, and Values: Progress and Prospects for Theory and Research." Leadership Quarterly. 12 (2001) 129-131
- Ricketts, Henry. "Adventurous Training – The Jewel in the Crown of Military Training or a Financial Fraud?" The Royal Engineers Journal . Vol 108, No 1, April 1994. 319-321.
- Stolz, Paul G. "An Examination of Leadership Development in the Great Outdoors." Human Resources Development Quarterly, Vol 3 No 4, Winter 1992. 357-372
- Thompson, Brad Lee. "Training in the Great Outdoors." Training. May (1991) 46-52
- Wagner, Richard J. et al. "Outdoor Training: Revolution or Fad." Training Development Journal. March (1991) 51-56.
- Yammarino, Francis J. "Leadership Skills: Introduction and Overview." Leadership Quarterly. 11 (2000) 1-5

Other Sources Consulted

- Australia, "Defence Organisation Policy on Adventurous Training" Defence Instructions (General). Pers B/11/98 15 Jun 98.

- Baillon, R.J.F. "A Better Approach to Adventure Training in the Canadian Forces" NDHQ Staff Officer for Adventure Training, unpublished service paper, date unknown. 1-12.
- British Army. Army Publication No 4 – Training. Prepared under the direction of the Chief of the General Staff, December 1996. (DGD&D/18/34/65 Army Code No 71621).
- Canadian Forces. "CFAO 9-58, Adventure Training." Canadian Forces Administration Orders. CFAO 9-58, 14 April 1988.
Available at http://www.dnd.admfinfcs/subjects/cfao/009-58_e.asp As of 23 September 2001
- Canadian Forces. "The Officer Professional Development (OPD) System." DAOD 5038-1. Available at: http://www.dnd.ca/admfinfcs/subjects/daod/5038/1_e.asp As of 6 April 2002
- Canadian Forces. Leadership Volume 2 – The Professional Officer (A-PD-131-002/PT-001). 31 July 1973
- Canadian Land Forces. "LFCO 23-2 - Adventure Training." Land Force Command Order 23-2, March 1994
- Canadian Land Forces. Command (B-GL-300-003/FP-000). 21 July 1996
- Hawkins, Bruce. "Review of Allied Forces Adventure Training." Service Paper prepared for Canadian Directorate of Army Training, 12 December 2001.
- Kovacheff, John D. et al. Leadership Theory, Measurement, and Implications for Officer Selection. Willowdale, On: Canadian Forces Personnel Applied research Unit, July (1992)
- McKenzie, Marcia. D. Gaining a Better Understanding of How Outward Bound Western Canada Course Outcomes are Achieved: A Research Study. Unpublished Master's thesis, Brock University, St Catherines, Ontario, Canada. (2000). Available at: <http://www.unh.edu/outdoor-education/McKenzie2000MastersThesis.pdf> . As of 1 April 2002.
- National Defence. Canadian Officership in the 21st Century (Officership 2020). Canada
- Pigeau, Ross and McCann, Carol. "What is a Commander?" Paper presented at the Human in Command Workshop & Symposium 5-8 June 2000, Breda, The Netherlands.
- Rhodes, Toby. Transfer Of Learning From Outdoor Management Development Programs: Barriers to Transfer and Strategies for Overcoming Them. A Summary Report for Participants in a Master of Education Training and Development,

University of Sheffield, UK. (2000). Available at: <http://www.unh.edu/outdoor-education/ThesisRhodes2000Summary.pdf> . AS of 1 April 2002.

Russell, Keith C. Theoretical Basis, Process, and Reported Outcomes of Wilderness Therapy as an Intervention and Treatment for Problem Behaviour in Adolescents. A Dissertation Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the College of Graduate Studies University of Idaho by May (1999)

United States Army. Field Manual (FM 22-100) Leadership. Washington: Department of Defence

Zaccaro, Stephen J. Models and Theories of Executive Leadership: A Conceptual/Empirical Review and Integration. US Army Research Institute for the Behavioural and Social Sciences, October 1996

Web Pages Consulted

Blakesley, Martin. “A Framework for Effective Leadership” Adminfo. BC Principals and Vice Principal’s Association (BCPVPA), March 1998
Available: <http://www.bcpvpa.bc.ca/adminfo/98-99/mar/index.html>. 6 March 2002

British Army Adventurous Training Definition.
Available at: <http://www.army.mod.venture/adventurous/definition.htm> . As of 31 October 2001

Fox, Steven J. “Unintended Consequences of Joint Digitization” Institute for National Strategic Studies. Available at: <http://www.ndu.edu/inss/siws/ch6.html>. As of 25 March 2002

Jacobson, Louis. “Veteran Defence Reporter Foresees Radical Change in Military”
Available at: <http://www.govexec.com/dailyfed/0801/08090111.htm>, As of 25 March 2002

James, William. “The Moral Equivalent to War.” Essay 1906. Available at:
<http://www.constitution.org/wj/meow.htm> As of 11 March 2002

Metacognition: An Overview. Available at:
<http://www.gse.buffalo.edu/fas/shuell/cep564/Metacog.htm> As of 12 May 2002.

Oliver Holmes quotation. Available at:
<http://www.lakeonline.act.edu.au/courses/faculties/outdoored/quotes.html>. As of 2 April 2002

Outward Bound International - Mission Statement. Available at: <http://www.outward-bound.org/mission2001.htm> . As of 31 March 2002

Wheatley, Gary and Noble, David F. "A Command and Control Operational Architecture for Future War Fighters" Technical Paper submitted to: Studies, Analysis and Simulation Panel (SAS) 1999 Symposium on Modelling and Analysis of Command and Control Available at: http://www.ebrinc.com/ebr/pubs/wheatley/WHEATLEY_NOFIGSa.htm . As of 25 March 2002

Miriam-Webster's On-line Collegiate Dictionary. Available at <http://www.m-w.com/cgi-bin/dictionary>. As of 29 March 2002