

# **Leader Competencies: Proposing a Research Framework**

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## Executive Summary

Changing operational objectives, new technology, new forms of organization, demographic changes, increasing diversity, and changes in socio-cultural values have provided the impetus for many military organizations to exam current conceptualizations of military leadership. The Canadian Forces are not atypical in this regard and presently have several initiatives underway directed towards examining future leadership requirements within the CF. Based on an exhaustive review of the leadership literature, Wenek (2002) has recently proposed a conceptual framework that defines and operationalizes leadership within the Canadian Forces (CF) and respective leadership competencies. He identified the shortcomings of adopting existing leadership competency models and proposed that research is required in order to identify and confirm leadership competencies. Furthermore, legal requirements dictate that human resources systems must be supported by an empirical base typically derived through job analysis or competency modeling procedures. In light of these issues, we provide an overview of current research regarding competency modeling procedures and propose a research framework that provides the structure for an empirical investigation of CF leadership competencies.

In the first section of our paper we provide the reader with information concerning how changes in the business environment have forced organizations to re-consider they way in which work is organized within their organizations. In some cases, the need for increased organizational flexibility has led to dissatisfaction with traditional approaches to analyzing job and worker requirements (Barnes-Nelson, 1996; Lawler, 1994; Pearlman & Barney, 2000). For some organizations, competency-modeling procedures *appear* to provide a more fluid, dynamic approach to identifying worker characteristics that are important for individual and organizational success. Increased interest in competency modeling approaches has resulted in the rapid development of competency-based terminology and numerous approaches to developing competency models. To a large extent, this barrage of models and terminology has led to a lack

of definitional clarity surrounding competency-based language and questions concerning the validity of competency modeling procedures.

Such concerns have provided the impetus for the Professional Practice Committee and the Scientific Affairs Committee of the Society for Industrial and Organizational Psychology to form the Job Analysis and Competency Modeling Task Force (JACMTF; Shippmann et al., 2000). The committee was charged with reviewing the major differences between job and competency analysis. We provide a review of this work and highlight the most significant findings. The identification of the strengths and weaknesses of both approaches allows us to better understand the differences between “good” and “bad” approaches to competency modeling.

Building on this work, we outline a research methodology that provides a structure to allow the CF to identify and validate a leadership competency model. We propose and discuss the following nine steps:

**Stage 1: Advance Planning and Preparation**

**Step 2: Establishing a Leadership Competency Task Force (LCTF)**

**Step 3: Defining Competencies**

**Step 4: Linking Competencies with HR Functions**

**Step 5: Designing the Competency Model**

**Step 6: Developing the Basis for a Competency Dictionary**

**Step 7: Defining and Creating the Competency Profiling Methodology**

**Step 8. Identifying and Implementing Competency Assessment Strategies**

**Step 9: Documenting the Development and Implementation Process**

Many of the specifics involved in each step will depend on preceding decisions. One of the most significant decisions to be made is which definition of competency is adopted. Procedures used to identify competencies will depend on this definition. However, the outlined steps provide a general overview of what will be required to determine and validate the CF leadership competency model. In the final section of our paper, we provide our conclusions regarding this initiative and competency modeling in general. We

conclude our paper by providing general comments about the use of such a competency model and organizational factors that might facilitate successful implementation of such an initiative.

## **Competency Modeling: An Overview**

Over the past ten to fifteen years, economic, demographic, and technological changes have had a dramatic impact on organizations. The speed of these change coupled with a significant increase in global competition has forced organizations to re-organize and re-think the way in which work is completed (Howard, 1995). In essence, top organizations are having to re-invent themselves at a rapid pace in order to remain competitive. In addition to significant changes in business processes, innovative HR strategies that help organizations meet new challenges are in demand (Pearlman & Barney, 2000). Individual employee contributions play a central role in this new economic environment, and their knowledge, skills, abilities, and personal characteristics are crucial to organizational success. Increasingly, however, attention is turning away from the KSAOs needed for success in a specific job and towards generic KSAOs that are critical for organizational success (Lawler, 1994). Corporate restructuring, streamlining, downsizing, and rightsizing often result in organizational “survivors” being assigned more diverse job tasks. They are no longer responsible for tasks associated with one position but must carry out whatever tasks are required, regardless of position (Reitsma, 1993). Furthermore, the need for greater organizational flexibility has impacted the way in which work is defined, organized, and carried out. In fact, several authors have raised questions about the usefulness of traditional approaches to job analysis and have suggested that they cannot accommodate the evolving nature of today’s jobs (Barnes-Nelson, 1996; Lawler, 1994; Pearlman & Barney, 2000).

The rapid pace of change in the current business environment lends itself well to competency-modeling approaches. Such approaches are typically more generic and focus on organizational as opposed to singular job objectives (Catano, Cronshaw, Wiesner, Hackett, & Methot, 2001; Lawler, 1994). Lawler and Leford (1992) have suggested that the time is right to move away from the focus on jobs to a focus on individuals and the competencies they possess. A competency-based human resource function may facilitate the alignment of individual performance with organizational success. Results from a recent survey of 292 organizations indicated that between 75 and 85 percent of organizations use some form of competency-

based applications (Cook & Bernthal, 1998, cited in Shippmann et al., 2000). Applications include identifying KSAOs and behaviours for successful job performance, designing performance management systems, creating multi-rater instruments, and designing development programs.

In exploring the roots of competency-based models, Shippmann et al. (2000) reviewed work flowing from leadership research and assessment centres. Assessment centres, which originally were developed to identify military leaders, have served to select managers and leaders for business and industry. The assessment centre approach identified a set of broad and generic dimensions that served as labels for clusters of “attributes”, “characteristics”, and qualities that were thought to be critical for job success (Shippmann et al., 2000). Shippmann et al. noted that these broad, generic individual difference dimensions, which are operationally defined through behavioural statements, were a forerunner of today’s competency modeling and that many assessment centre dimensions look very similar to the dimensions found in competency libraries of many well-known providers of competency modeling. In discussing complex taxonomies of managerial performance developed by various researchers, they go on to state that although there is unique variability in the dimensions, more striking was the substantial overlap in job performance categories. That is, there is a good deal of commonality in the broad dimensions and organizing structure of managerial/leadership performance. These taxonomies developed through job analytic procedures are also similar to the “characteristics” identified by Boyatzis (1982) in his management competency model (Shippmann et al., 2000). It seems reasonable, then, to think that a competency-based model can be developed for military leadership.

### **Defining “Competency”**

Robert White and David McClelland introduced the idea of “competency” into the human resource literature (Dubois, 1993). However, it was Boyatzis (1982) that popularized the term (c.f., Woodruffe, 1991) in The Competent Manager and defined a competency as a combination of a motive, trait, skill, aspect of one’s self-image or social role, or a body of relevant knowledge. This definition left much room for debate and, as it ensued, Zemke (1982) suggested that:

“Competency, competencies, competency models, and competency-based training are Humpty Dumpty words meaning only what the definer wants them to mean. The problem comes not from malice, stupidity or marketing avarice, but instead from some basic procedural and philosophical differences among those racing to define and develop the concept and to set the model for the way the rest of us will use competencies in our day-to-day training efforts.” (p.28)

Since this time, the definitional debate has continued unabated. Competencies have been defined in a number of different ways, including:

- The knowledge, skills, abilities, and other attributes required to perform desired future behaviour (Blancero, Boroski, & Dyer, 1996)
- An individual’s demonstrated knowledge, skills, or abilities (Ulrich, Brockbank, Yeung, & Lake, 1995).
- Skills and traits that are needed by employees to be effective in a job (Mansfield, 1996).
- Knowledge and skills that underlie effective performance (McLagan, 1996)
- An underlying characteristic of an individual that is causally related to criterion-referenced effective and/or superior performance in a job or situation (Spencer & Spencer, 1993).
- Behaviours that superior performers exhibit more consistently than average performers (Klein, 1996).
- A mixture of knowledge, skills, abilities, motivation, beliefs, values, and interests (Fleishman, Wetrogen, Uhlman, & Marshall-Mies, 1995).
- A knowledge, skill, ability, or characteristic associated with high performance on a job (Mirabile, 1997).
- A combination of motives, traits, self-concepts, attitudes or values, content knowledge or cognitive behavior skills; any individual characteristic that can be reliably measured and that can

be shown to differentiate superior from average performers (Spencer, McClelland, & Spencer, 1994).

- A written description of measurable work habits and personal skills used to achieve work objectives (Green, 1999).
- An underlying characteristic of an individual which is causally related to effective or superior performance in a job (Mitrani, Dalziel, & Fitts, 1992)
- The characteristics that underlie performance or behaviour at work (Slivinski et al., 1996)
- A competency is any knowledge, skill/ability, or personal quality, *demonstrated* through behaviour, that results in service excellence (Bonder, 2003).

Catano et al. (2001) argued that most definitions operationalize competencies as groups of related behaviours or required KSAOs. In both cases, the concern is with personal characteristics or behaviours that lead to successful job performance. Contrary to the original concept, some definitions de-emphasize the requirement that a competency differentiates superior workers from others, and they base the definition on “successful” performance, which is left undefined. Successful performance can range from the merely adequate to excellent. The first step in the implementation of any competency-based management framework must be organizational consensus on how to define “competency.” This agreed-upon definition will drive the methodology used to identify and assess the competencies within the organization.

### **Common Architecture**

Competency-based models vary in the information that they collect. Some models emphasize generic abilities and personal qualities, whereas other models focus on job-specific technical skills. Mansfield (1996) placed these types of competency models into two categories. The “Single Job Competency Model” focuses on a single, critical job in an organization to describe key job requirements. It is effective in identifying the definitive competencies required for the specified job. However, in addition to being costly to implement, the obtained information cannot be applied to other jobs in the organization.



Neither can the information be integrated, in a consistent manner, in the organization's human resources (HR) system. On the other end of the spectrum we have the "One Size Fits All" model, which develops competencies for a broad range of jobs (e.g., all front line supervisors). The common set of competencies that are developed become the basis for the HR processes. The resultant competencies, however, do not describe any particular job because the competencies have to be generic to apply to all jobs within the broad range. That is, the specific knowledge and skills required for any one job are de-emphasized.

Both the "Single Job" and "One Size Fits All" models have limited value in selection and training for specific jobs, or in classification of individuals into specific jobs. In both models, the competencies identified for a job or groups of jobs cannot be applied to other jobs that were not reviewed. More recently, organizations that have decided to embrace a competency-based framework have recognized that they must include the competencies required at the specific job level, basing the competency model on a three-tiered architecture of core, functional (or group), and job specific (or task) competencies.

Core Competencies are competencies that are necessary for every position in the organization. Core competencies support the organization's mission, vision, and values. They are not individual-level KSAOs; they are organizational KSAOs that are required for organizational success (Prahalad & Hamel, 1990). Core competencies are what an organization or individual does, or should do, best; they are key strengths that organizations and individuals possess and demonstrate (Lahti, 1999).

Functional or Group Competencies are the characteristics that are required of all employees performing a common function or whose job belongs to a common job group or occupational family. They are the common characteristics shared by different positions within the job family. They describe what any employee needs to know or what skills are needed for any job within the job group. For example, all CF members holding positions in the Military Occupational Family must have a degree of physical strength to carry out their functions whether they hold Infantry or Artillery MOCs.

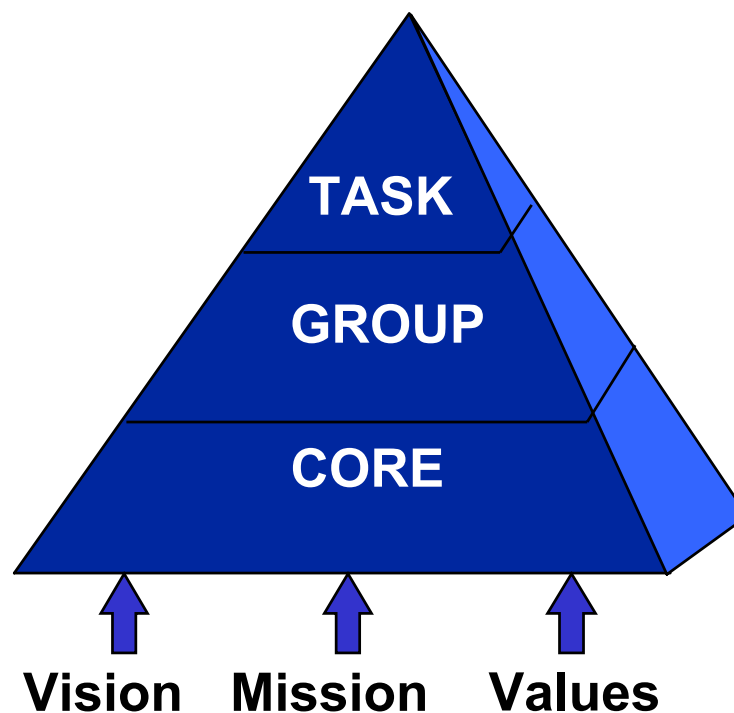
Job Specific or Task Competencies are characteristics that apply only to specific positions within the organization. They are technical or professional requirements that may apply to only one job. The technical

skills required to fire a rifle are different from those needed to fire an artillery piece. Morris (1996) noted that without specific skills components in a competency model, it is difficult for employees to see the linkage of the model to performance outcomes because they have no idea what they need to know to do their own job successfully or what they must do to qualify for other positions in the organization.

Core, group, and task competencies comprise the architecture of an organization's competency model. Core competencies are the foundation for group competencies, which in turn support task competencies. Figure 1 illustrates this relationship.

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**Figure 1. A Common Architecture for Competency Models**



**Competency Dictionary**

Details concerning the operationalization of each competency are typically found in the organization's competency dictionary. A competency dictionary lists all the competencies that are required by an organization to achieve its mandate and defines those competencies in terms of KSAOs and behaviours, depending on the adopted competency definition. It includes all the core, group, and task competencies needed by the organization to perform its mandate. The dictionary also includes the proficiency level needed to successfully perform each competency for each position in the organization. That is, although all individuals in an organization are expected to exhibit all of the core competencies, they are not expected to do so to the same degree. Similarly, individuals may need the same group and task competencies but may require a different level of proficiency depending on the organizational level, of the individual (Trainor, 1997). As employees take on more responsibility in an organization, they may be required to become more proficient with respect to any competency if they are to perform effectively. For example, communication might be seen as a core organizational competency. However, behavioural expectations regarding the communication competency will be different for a junior leader compared to a senior leader.

A competency dictionary should also include a proficiency scale that is independent of any position. The levels in a proficiency scale reflect real, observable differences from one organizational level to another. The proficiency scale is not an assessment tool; it presents a series of behaviours related to specific competencies. Table 1 presents an example competency dictionary entry for a "Planning and Organizing" competency along with its associated proficiency scale. This dictionary is being prepared for use throughout the RCMP as part of implementing a competency-based management framework.

Table 1. A sample competency dictionary entry and its associated proficiency scale.

**Planning and Organizing:** The ability to plan, implement, evaluate and adjust goals, objectives and courses of action to meet Organizational needs.

**Progression of the scale:** *from identifying priorities and planning own work to overseeing strategic organizational planning*

Proficiency level			
Level 1	Level 2	Level 3	Level 4
<i>Identifying priorities and planning own work</i>	<i>Developing and implementing project plans</i>	<i>Preparing and managing complex project plans and taking corrective action</i>	<i>Overseeing strategic organizational planning</i>
<ul style="list-style-type: none"> <li>• Sets personal objectives and goals and manages use of own time.</li> <li>• Works towards accomplishing own daily, weekly and annual objectives.</li> <li>• Learns from mistakes, adjusts goals and courses of action to meet changing needs.</li> </ul>	<ul style="list-style-type: none"> <li>• Develops and implements realistic and achievable work plans for group or project team – including tasks, priorities, resources and schedules.</li> <li>• Establishes priorities, identifies critical tasks, and pushes projects forward.</li> <li>• Establishes controls to detect problems early, correct them and notify those involved if deadlines are affected.</li> </ul>	<ul style="list-style-type: none"> <li>• Prepares and manages multi-resource plans which can affect the direction of the work unit.</li> <li>• Analyzes circumstances and takes corrective action to meet deadlines and avoid resource constraints.</li> <li>• Prepares to implement by ensuring that mandate is clear and manageable with present resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Oversees development and manages overall strategy, plans, resources, and systems to create and implement programs and policy.</li> <li>• Works with plans that may affect the strategic direction of the organization.</li> <li>• Analyzes emerging opportunities and threats, and extrapolates the major implications for the organization.</li> </ul>

Source: Draft Competency Dictionary (RCMP, 2000)

**Profile**

A profile is a set of competencies related to a group, task, or employee. Because core competencies apply to all employees, all profiles must necessarily include core competencies at the requisite level of proficiency. For example, a Group Profile includes the core group competencies needed for successful performance of Group functions. A Job-Specific (Task) Profile adds competencies to the profile that are needed for successful performance in a specific job within the group. The profile also includes the proficiency level required for each competency in a profile. Figure 2 presents an example competency profile developed by Human Resources Development Canada (HRDC) for one of its Service Delivery Representatives. The number in the brackets following each competency represents the proficiency level required for that competency for successful job performance.

An Employee Profile represents the proficiency level demonstrated by an employee on each competency in the competency dictionary. A match between an employee profile and a job-specific or group profile suggests that this employee is suitable for a specific position within a group or job family. It is reasonable that every employee will not meet the proficiency levels on specific competencies and that they will exceed the required levels on others. This issue highlights the necessity of determining the proficiency levels for different competency profiles and having the capability to assess employees accurately to identify their level of proficiency on the competencies.

**Figure 2.** A competency profile for a HRDC Service Delivery Representative



## competency profile

## Service Delivery Representative (CR-5)

### Core Competencies

- Communication (3)
- Thinking Skills (3)
- Using Technology (3)
- Changing and Learning (3)
- Client Focus (4)
- Initiative (3)
- Positive Attitude (3)
- Working with Others (3)
- Knowing our Business (3)

### Group Competencies (Primary)

- Applying Principles and Procedures (4)
- Diagnostic Information Gathering (4)
- Verification & Accuracy (4)
- Interpersonal Awareness (4)

### Task Competencies

- Arithmetic Skills (3)
- Knowledge of Legislation, Procedures and Policies Related to the Delivery of Employment Insurance Benefits (3)
- Knowledge of the Employment Insurance Claims Calculation and Assessment Process (3)
- Knowledge of the Local Labour Market and Government and Community Service Providers (3)

Source: Bonder (2003)

## **Profiling Methodology**

There is no agreed upon methodology for identifying competencies or proficiency levels. The methodology used to determine the competencies generally follows the procedures outlined by Dubois (1993) and involves:

1. Selection of a criterion group that includes both high and low performers within each job.
2. Collection of data from the criterion group on how it performs the target job through observation and interviews (including information on how individuals act, think, and feel while doing their jobs).
3. Identification of patterns within the data that differentiates between high and low performers.

Noticeably absent from the above is any attempt to gather information from other sources. There is, however, considerable variation from this methodology. For example, the Public Service Commission of Canada (Slivinski & Miles, 1997) proposed the following methodology for use in identifying competency profiles:

1. Consider the level at which the work is performed
2. Consider the role
3. Consider the stage of organizational development
4. Consider other relevant contextual variables
5. Identify relevant competency categories and competency clusters
6. Select individual competencies
7. Collect additional supporting information
8. Review, customize, finalize
9. Establish the relative importance and level of mastery of each competency
10. Create behavioural indicators

Noticeably absent from the Public Service model is any concern with identifying competencies that separate superior from average performers or any indication that the selection of the competencies is based on anything other than a manager's opinion. The application of the competency model in this Public Service model, as well as in other models, has become divorced from the original competency theory of David McClelland (1973).

The lack of an agreed upon methodology leads to a lack of methodological rigor. Courts in both Canada and the United States have ruled that human resources systems must be supported by an empirical base, which are normally developed through job analysis. In fact, the Canadian Human Rights Commission emphasized that there is a need to demonstrate a link between selection measures and the essential duties of a job. Professional standards in industrial/organizational psychology (e.g., *Uniform Guidelines on Employee Selection Procedures* (1978) and the *Principles for the Validation and Use of Personnel Selection Procedures* (SIOP, 1987)) state that job analysis is essential to the validation of all major human resource activities. Although some researchers might argue that good competency modeling is simply disguised job analysis (Pearlman, 2002), the validity of any resulting model will depend on the methodology chosen to develop the competency dictionary and the resultant competency profiles. We will propose a methodology that will meet professional standards later in our discussion.

### **Assessment Strategies**

Competencies can be used for a variety of human resource applications. Competency-based management provides an integrated framework to maximize the human capital of an organization. Once competencies are identified for each job and/or family of jobs, they can be used to manage all aspects of human resource functions. When competencies are tied to the goals and objectives of an organization, all personnel, regardless of their function, can be aligned to achieve organizational goals. However, an organization first must decide what it wishes to achieve by implementing a competency-based management



framework. The purpose of the system will likely influence both the profiling methodology that the organization adopts and its assessment strategy.

A competency-based system can support a range of HR applications and integrate the various human resource processes in an organization. However, the level of detail needed to apply them to each HR function will vary. The criteria for determining initial applications for competency-based management must include the need to address existing HR issues such as improving staffing and resourcing, facilitating the integration of HR processes, providing a foundation for performance management, supporting the development of a new compensation strategy, enabling the development of succession plans for jobs/teams and evaluating workforce capabilities. Organizations like the National Research Council, HRDC, and CCRA have used competency-based management in areas such as learning and development and career planning, staffing, and promotion). Experience at the Ontario Ministry of Natural Resources demonstrated that human resource policies, practices, and processes must undergo significant transformation in order to support competency-based human resource management. In many organizations, a lack of consideration of existing policies and practices has been the downfall of implementing a comprehensive competency-based human resource management system. An organization must adopt an assessment strategy for setting the proficiency levels required for various HR functions and the evaluation methods that will be used to assess the proficiency levels of employees' competencies.

Typically, a variety of assessment methods are used to assess employee competencies. The choice of method depends on how the results will be used. For example, the consequences of using unreliable and invalid measures to assess competencies for promotion decisions are more serious than the consequences of using unreliable and invalid measures to assess those same competencies for self-development purposes. A key issue that must be resolved is to identify the primary use of the assessment data within the competency-based framework. Cira and Benjamin (1998) outlined five possible uses of assessment data:

- **Assessment for personal development and growth:** The assessment data provide employees with feedback that they may use as part of their overall development.

- **Assessment for job-specific performance feedback and improvement:** The assessment data provide an employee with feedback/information that guides or shapes desired performance in the his or her current job.
- **Assessment for selection and promotion:** The assessment data are used as the basis for recruiting and selecting new employees and promoting current employees.
- **Assessment for job classification:** The assessment data are used to identify the competencies and the required levels of those competencies for a particular occupational classification.
- **Assessment for pay:** The individual assessment data are the basis for compensation. The compensation provided to an individual is linked to their attainment of specific proficiency levels on the competencies. This is the most controversial use of competency data and often fiercely resented by employees.

Management has the right to assess employees for selection and development, to define desired performance levels, to evaluate performance, and to shape job performance. However, employees have the right to have their competencies evaluated fairly, reliably, and validly.

### **HR Management Information System**

There is a very practical consideration that is often overlooked when developing a competency-based management framework: Can the competency-based system be linked to the organization's human resources management information system (HRMIS)? HRMIS is a data base shared by all human resources functions and integrates all human resource services. There are several HRMIS systems, and PeopleSoft appears to be the system of choice for many Canadian Government Departments. PeopleSoft has recently introduced a competency-based module that can be used in conjunction with their other HR modules. PeopleSoft Version 8 is web enabled and said to be user friendly. The CF needs to consider the implication of the development and use of a competency-based system for the existing HRMIS.

## **Competency Modeling vs. Job Analysis**

The use of competency-based approaches has increased dramatically at the expense of traditional job analytic approaches to defining work and worker requirements. Competency-based advocates assume that job analysis involves only an emphasis on time-consuming task analysis, and that a competency-based framework can be implemented in a shorter time frame to accommodate changing organizational needs. However, implementing a good competency-based framework may take as long, or longer, than doing a traditional job analysis.

In its simplest terms, a job analysis is a systematic process for gathering, documenting and analyzing data about the work required for a job (Catano et al., 2001). Job analysis data includes a description of the context and principal duties of the job and information about the skills, responsibilities, mental and physical effort, and working conditions required to successfully perform in the job. A summary of job analysis data is generally found in a job description. There are a number of models and techniques for conducting job analyses. As in the case of competencies, the functional use of the data may prescribe a particular approach (Levine, Thomas, & Sistrunk, 1988).

Job analysis data supports the same HR activities (e.g., recruitment and selection, training and development, performance management) as does a competency-based management framework. Job analysis helps to ensure that decisions made with respect to HR processes are fair and accurate (e.g., selection of the right person for the job, appropriate decisions about training, performance management, and development, etc.) and that those employee-related decisions are legally defensible.

Concern over the increasing use of competency modeling procedures and the lack of definitional clarity led the Professional Practice Committee and the Scientific Affairs Committee of the Society for Industrial and Organizational Psychology to form the Job Analysis and Competency Modeling Task Force (JACMTF). The JACMTF was asked to review the origins of competency modeling, to identify common characteristics of competency models, and to identify the differences between traditional job analysis and

competency modeling (Shippmann et al., 2000). The JACMTF established the following criteria on which to base their evaluation:

- **Method of investigation used:** the methods used for gathering job-related information (e.g., interviews, questionnaires, focus groups, etc.).
- **Type of descriptor information sought:** the type of information gathered (e.g., KSAOs, work activities, organizational objectives, etc.).
- **Procedures for developing descriptor content:** the procedures used to develop task statements, KSAO definitions, etc. These procedures might involve subject matter experts or rely on pre-existing information, such as task inventories.
- **Detail of descriptor:** the extent to which KSAOs, competencies, task statements, etc. are clearly defined and placed in broader categories or dimensions with little overlap.
- **Link to business:** the transparency of the link between descriptor information and business goals/strategies.
- **Content review:** the extent to which mechanisms are in place to allow job content experts the opportunity to review the resulting descriptor information.
- **Ranking descriptor:** the procedures used to establish priorities and/or weights for the resulting descriptor information (e.g., KSAOs, behavioural indicators, etc.) in terms of frequency and/or importance for organizational and job success.
- **Assessment of reliability:** the reproducibility of final descriptor content. This criterion might involve assessing any classification of data into broader dimensions.
- **Retention criteria:** the extent to which an explicit criterion exists for evaluating whether descriptor content should be included or excluded from the database.
- **Documentation:** the extent to which information concerning methods and procedures used is provided.

In all instances (except linkage to business goals and strategies), traditional job analysis methods were rated as being more rigorous by both proponents of job analysis and competency modeling in their ability to control variables that have an impact on the quality of the resulting information. The largest discrepancies between the two approaches occurred for type of descriptor information collected and the assessment of reliability. The type of descriptor information collected in job analysis is often dependent on the purpose for which the information is going to be used (e.g., selection vs. compensation). Additionally, job analysis approaches are more likely to collect several types of information. A typical job analysis might collect information on organizational objectives, behavioural indicators, and KSAOs. Competency approaches were rated as less rigorous because they typically collect the same information regardless of the intended use of the competency data. Also, competency models are less likely to focus on the reproducibility or reliability of the resulting data. Members of the JACMTF rated competency approaches higher on only one of the specified criteria: its ability to establish more direct linkages between descriptor information and business goals or strategies.

The JACMTF also identified other, less technical evaluative criteria. They concluded that competency approaches are more likely to focus on generic personal characteristics that are common across a broad range of jobs. Competency approaches are more closely aligned with worker-orientated job analyses as opposed to specific task-based analyses. The emphasis of competency modeling on core characteristics has given these procedures higher levels of “face validity” with organizational decision-makers. Executives typically comment that competencies have provided them with a common language. As organizations continue to “de-complicate” business processes, the increased face validity of competency modeling procedures and their focus on core competencies holds wide appeal. However, these factors have resulted in decreased quality of descriptor information.

Pearlman (2002) suggested that there are both good and bad approaches to competency modeling. He referred to good approaches as “Trojan Horse” work: In essence, traditional job analytic procedures are altered slightly and delivered under the guise of competency modeling. Characteristics of bad approaches

include ill-defined descriptor content (e.g., competencies), a lack of methodological rigor, applications that are unsuited for the intended purpose, lack of legal defensibility, and a lack of attention to evaluating the effectiveness of competency-modeling procedures. In other words, good competency modelling applies the techniques and approaches that have been used for years by worker-oriented job analysis procedures. This link between good competency modelling and job analysis has several implications for the implementation of a competency-based management framework:

- The defensibility and accuracy of any competency identification work can only be supported if it is based on an accurate and up-to-date analysis of the work to be performed on the job.
- Analyzing a job and reflecting the context, results, and responsibilities of the job through a job description is the first step in competency development work.
- The appropriate analysis and description of jobs in an organization can only be carried out once the business of the organization has been determined and the necessary organizational structure that are required to deliver the work of the organization has been determined.

(Bonder, Hollands, & Mills, 1999)

### **Leadership in the Canadian Forces**

The Canadian Forces (CF) and more specifically the Canadian Forces Leadership Institute (CFLI) have been directing research resources towards gaining a greater understanding of current leadership theory. Based on a thorough review of both empirical and theoretical leadership literatures (as well as reviews of several sponsor research reports), the CFLI has recently produced a discussion paper, *Defining Effective Leadership in the Canadian Forces: Content and Process Frameworks* (Wenek, 2002). Wenek outlined a proposed leadership performance domain and discussed generic leadership competency models. He suggested that institutional effectiveness is a result of achieving four primary objectives: (1) Mission success; (2) Member well-being and commitment; (3) Internal integration; and (4) External adaptability.

Using these four objectives and existing leadership behavioural taxonomies, he outlined possible CF leadership role requirements and responsibilities (Table 2).

A salient characteristic of the proposed taxonomy is the distinction between leading people and leading the institution. This distinction may reflect an organizational leadership continuum in which lower level leaders are primarily involved in leading people, whereas senior leaders are primarily responsible for leading the organization. This distinction is also referred to as direct and indirect leadership. Indirect leadership is more common at the executive level, which raises an important issue surrounding the organizational structure of leadership: When developing competency models in organizations, separate but overlapping models are often constructed based on job families. In the case of the CF, leadership competency models will have to be created based on leadership job families. At the broadest level, leadership job families might reflect direct or indirect leadership requirements. Creating additional categories within these dimensions may be necessary.

Wenck (2002) also discussed the various generic taxonomies of leader competencies that have been presented in the literature. An impressive array of leadership competencies, characteristics, KSAOs, and behaviours has been documented (Newsome, Day & Catano, 2002). Several authors have presented taxonomies of leadership competencies (c.f., Spencer & Spencer, 1993; Tett, Guterman, Bleier, & Murphy, 2000), Yukl, 1999; Zaccaro, 1996). Such competency models are likely to capture the majority of leadership competencies. However, adopting a generic competency model in the face of differing leadership roles will likely have a negative impact on the usefulness of any competency model. With this issue in mind, we propose that the CF undertake research activities aimed at identifying leader competencies by leader job family. The Wenck (2002) document provides a useful starting point for articulating the CF leadership performance dimensions and to some extent broad leadership job families. The remainder of this paper focuses on presenting our recommendations for creating and validating a CF Leadership Competency Model.

**Table 2.** CF leadership roles and responsibilities differentiated by effectiveness dimensions and leadership levels as proposed by Wenek (2002).

<i>Effectiveness Dimensions</i>	<i>Levels of Leadership</i>	
	<i>Leading People</i>	<i>Leading the Institution</i>
<b>Mission Success</b>	<p>Achieve competence &amp; pursue self-improvement. Solve problems; make decisions. Clarify objectives &amp; intent. Plan &amp; organize; assign tasks. Direct; motivate by persuasion, example, &amp; sharing risks/hardships. Secure &amp; manage resources. Train individuals &amp; teams under demanding &amp; realistic conditions. Build teamwork &amp; cohesion.</p>	<p>Establish strategic direction &amp; goals. Create necessary operational capabilities (force structure, equipment, command &amp; control). Reconcile competing obligations, set priorities, &amp; allocate resources. Develop the leadership cadre. Support intellectual inquiry &amp; develop advanced doctrine.</p>
<b>Internal Integration</b>	<p>Structure &amp; co-ordinate; establish standards &amp; routines; stabilize. Socialize new members into military values/conduct system, history, &amp; traditions. Keep superiors informed of activities &amp; developments. Keep subordinates informed; explain events &amp; decisions. Uphold values of military ethos; maintain order &amp; discipline. Understand &amp; follow policies &amp; procedures. Monitor; inspect; correct; evaluate.</p>	<p>Manage meaning; use media &amp; symbolism to maintain cohesion &amp; morale. Develop &amp; maintain professional culture &amp; identity; preserve heritage. Develop &amp; maintain regulatory justice &amp; ethics systems &amp; policies. Develop &amp; maintain effective information &amp; administrative systems. Develop &amp; maintain audit &amp; evaluation systems.</p>
<b>Member Well-being &amp; Commitment</b>	<p>Mentor; educate; develop. Establish climate of respect for individual rights &amp; diversity. Treat fairly; respond to complaints; represent interests. Resolve interpersonal conflicts. Consult subordinates on matters that affect them. Monitor morale &amp; ensure subordinate well-being. Recognize &amp; reward.</p>	<p>Accommodate personal needs in development/career system. Enable individual &amp; collective mechanisms of voice. Ensure fair complaint resolution. Honour social contract; maintain strong QOL &amp; member-support systems. Establish recognition/reward systems.</p>
<b>External Adaptability</b>	<p>Maintain situational awareness; keep current; seek information. Establish &amp; liaise with contacts. Anticipate the future. Support innovation; experiment. Learn from experience.</p>	<p>Master civil-military relations. Gather &amp; analyze intelligence; define threats &amp; challenges. Develop external networks &amp; collaborative relationships. Initiate &amp; lead change. Foster organizational learning. Conduct routine external reporting.</p>



## **Creating & Validating a CF Leadership Competency Model**

### **Step 1: Obtaining senior-level approval to develop and use a competency-base model**

Because a properly constructed competency-based model will require time, effort, and money to implement, it is imperative that senior management levels support the initiative.

**The CFLI must obtain approval from senior levels to proceed with a competency-based model that will align leadership to the strategic objectives of the CF.**

### **Step 2: Establishing a Leadership Competency Task Force (LCTF)**

Because developing a competency model will take considerable time and effort and must have the support of senior level managers, a Leadership Competency Task Force (LCTF) should be established. It should be under the direction of senior researchers, be comprised of CF organizational members who are familiar with CF organizational structure, represent existing job families (e.g., Military, Operator), reflect the variance in leadership hierarchy, and have the authority to make decisions and obtain support from all levels of the military. The LCTF should also be responsible for planning and implementing the competency-based management framework.

**The CFLI must develop the LCTF. This LCTF should be developed and given a mandate to develop and implement a competency-based leadership framework based on best practices as well as on research findings. The plan should:**

- **Ensure support from senior management;**
- **Allow time to design and implement competency-based management;**
- **Commit sufficient resources to develop, communicate, pilot and integrate the competencies into standard practices over a significant period of time.**

### **Step 3: Defining Competencies**

One of the first issues that must be addressed is the adoption of a definition of “competency.” For example, will the definition be based on average or superior performance? The adopted definition will affect the information that needs to be gathered to implement the competency model. The definition will drive many aspects of the model.

**The CFLI must adopt a definition of competency that best reflects the perceived purpose of the competency-based management framework.**

### **Step 4: Linking Competencies with HR Functions**

As outlined in the first section of this paper, competency modeling can be used for many HR functions. The architecture, profiling methodology, and assessment strategy depend on the purpose or goal of the competency-based management model. Performance management may dictate a model very different from one used in selection. The LCTF must identify the HR functions for which the competencies will be used.

**The LCTF must identify the HR function or functions that will be integrated in to the competency model by answering the following questions:**

- **What are the goals and the anticipated benefits to the organization for implementing competency-based management?**
- **How will the competencies be used to support the HR management process? That is, for which applications will competencies be used?**
- **In order to meet operational requirements, what is the order of priority for the redesign of the HR management processes (e.g., after the model is complete, what will be its first purpose)?**

### **Step 5: Designing the Competency Model**

The next issue that must be considered is the nature of the competency-based model's architecture. At what level will competencies be defined to support the identified HR functions? Will it encompass core (organization-wide) competencies, group (or function-based) competencies, job-specific (task) competencies, or a combination of these options. The Wenek document may serve as a valid basis for this discussion.

**The LCTF must determine the architecture of the competency model in relation to the HR functions specified in Step 4. This step will involve defining and documenting:**

- **The levels at which competencies will be defined (i.e. Core Competencies that relate to all jobs in the organization; group (i.e., functional) competencies that relate to a group of jobs (a job family); and job-specific (i.e., task) competencies that relate to target jobs);**
- **The level of performance proficiency that will be used to define a competency in the model (e.g. entry level; high-end excellent performance; meeting requirements, etc.);**
- **The manner in which competencies will be used to support the designated HR functions;**
- **Other rules that support the ease of use in the various HR applications (e.g. rules about the number of competencies used in the model)**

### **Step 6: Developing the Basis for a Competency Dictionary**

As is evident from our discussion, leadership can be constructed as a multi-faceted variable. There are many different leadership taxonomies. However, many of these taxonomies have overlapping structures. Before a CFLI competency model can be developed, there must first be agreement on the leadership dimensions that will be included in the model. Once again, the Wenek document can provide direction as to

proposed leadership dimensions, respective tasks, and competencies. It is essential that the resultant model receive support from various stakeholders, including senior management. Although there may be theoretical agreement on what constitutes leadership, these definitions may not have the support of the military leaders to whom they are to apply. It is essential that there is broad-based agreement on the leadership competencies that will be included in the model. Additionally, the LCTF must identify the proficiency levels required for each competency.

A Competency Dictionary should be an organic document that changes with the needs of the organization. The LCTF should be given some type of permanent status to monitor the continued relevance of the Dictionary and the proficiency levels with respect to job families and jobs. The Competency Dictionary should be subject to ongoing review, refinement, and validation. The Competency Scales in the dictionary should include a common competency name, common definition, common scale levels (including names for each level), and to the extent possible, common behavioural indicators for each level of respective competency proficiency scales. Some variations in the behavioural indicators may be required across the competency profiles for the different leadership job families and jobs to ensure that standards appropriate to each are available to support effective HR functions within and across these job families.

**The LCTF must create the basis for a competency dictionary, in which the leadership dimensions and proficiency levels are identified.**

### **Step 7: Defining and Creating the Competency Profiling Methodology**

The most difficult part of building the competency model will be to decide on a Profiling Methodology. The Competency Dictionary is only a starting point for the development of competency profiles for each leadership job family that will be part of the competency model. Decisions will have to be made on how to develop the competency profile for representative positions in the job family to achieve not only support from members but also reliability and validity with respect to the proficiency levels for each

profile. All profiles must satisfy relevant human rights and employment equity legislation. We have outlined a six-stage profiling methodology in order to provide options that can be used to profile particular jobs or functions. At each specific stage, a detailed work plan will have to be constructed by the LCTF, which outlines the objectives, approach, activities, and outcomes. In deciding on a profiling methodology the LCTF must:

- maximize the information that the CFLI already has on competencies;
- examine the information available on a particular leadership function or job family;
- assess the efficiency and cost effectiveness of the particular methodology;
- identify the amount of detailed information that needs to be obtained;
- ensure the defensibility of both the competencies and the profiles; and,
- examine the availability and suitability of “off the shelf” competencies

**The LCTF must define a profiling methodology by following these six stages:**

**Stage 1: Advance Planning and Preparation.** The LCTF must review the range and levels of jobs, existing information, and complexity of work to assess the appropriateness of various data collection techniques for determining the most appropriate methodology for profiling the functions. Profiling several leadership job families across multiple occupational families might require a questionnaire approach. In comparison, a focus group approach might be used if there are relatively few families. The data collection and review process may also include “off the shelf” competencies, such as those included in leadership taxonomies.

**Stage 2: Key Stakeholder Consultation.** The LCTF must identify relevant key stakeholders and prepare an interview/questionnaire to obtain information on the current state, the desired state, and the competencies that are required to move to the desired state. The data collected

at the advance planning and preparation step, as well as from the key stakeholder interviews, will result in a draft profile that is ready for validation.

As indicated, there are a number of ways that profiles can be created. The specifics will be determined by decisions at steps #1 through #6. However, we provide the following as an example of a process that might be used:

- The LCTF reaches consensus on the structure of leadership job families and respective leadership objectives.
- Using existing data/source (e.g., Wenek, 2002; Yukl, 1999), the LCTF creates generic taxonomy of leadership behaviours necessary for achieving outlined objectives. This taxonomy is used as content for a behavioural checklist questionnaire with frequency and importance scales.
- SMEs representing leadership job families, as defined by the LCTF, complete the questionnaire.
- Results are analyzed by job family and leadership level. Criticality ratings are designed and are used to identify the most important behaviours.
- With the assistance of SMEs, the LCTF identifies critical leadership competencies and the requisite proficiency levels.

**Stage 3: Subject Matter Expert (SME) Input.** SMEs are used to identify the critical competencies required for their position (or the position of a subordinate, superior, or coworker). In addition, they are able to help identify the entry and operational proficiency levels that are required for the competencies. The LCTF produces and reviews the draft profile to ensure consistency and defensibility. The draft is then sent out to other SMEs performing the same function in order to validate and verify the competency profile.

**Stage 4: Validation of Draft Competency Profile(s).** This step can be done via interviews, surveys, and/or focus groups. The main purpose is to ensure that the competencies that have been identified by the SMEs accurately reflect the critical competencies required for the function and/or job. After input from the SMEs, the LCTF will review and integrate the SMEs' comments. This step may be repeated as necessary.

**Stage 5: Compatibility of Draft Competency Profile and HRMIS.** The draft profile must be compatible with the CF's HRMIS. At some point in the process, compatibility issues must be resolved. The scope and capabilities of the CF's HRMIS may impose limits on the competency model. For example, the HRMIS may have a maximum number of competencies that it can handle (i.e., it is impractical to identify and measure 30 competencies if the HRMIS can only handle 15).

**Stage 6: Profile Finalization and Approval.** The draft profile is finalized by the LCTF, translated, and approved by the appropriate line authorities. The competency function profile is ready for publication and use in HR processes.

### **Step 8. Identifying and Implementing Competency Assessment Strategies**

After the competency profiles have been validated, the LCTF will have to decide on the best way to reliably and validly measure each specific competency. These measures may be pre-existing (off-the-shelf) measures or they may be developed specifically for the CF. The assessment strategy must also meet the objectives of the competency model.

**The LCTF is responsible for identifying reliable and valid assessment strategies that will provide information on proficiency levels that each member possesses with respect to the competency profile.**

### **Step 9: Documenting the Development and Implementation Process**

One key to defensibility of any human resources function is to document all of the steps that were taken as part of the development and implementation process, including the reasons for making particular decisions at important choice-points, as well as the expectations for the competency-based management system. This step will include obtaining confirmation and documentation of feedback received during the development and implementation process, specifically information that is related to the development of the competency profiles. Compromises may have to be made with respect to the competencies (e.g., an existing HRMIS might place practical limitations on the number of competencies used) and to the assessment procedures that are selected for use in the system (e.g., organizational culture might dictate limitations on the assessment procedures used).

**The LCTF must include detailed and ongoing documentation of the competency modeling process, explaining the process that was used and the rationale for decisions that were made.**

### **Note on Methodology**

As a starting point, we recommend that the CFLI undertake a targeted pilot project to assess leader competencies. A detailed proposal based on our review would be required prior to starting such a project. A pilot project could be used to assess the utility of the proposed methodology prior to initiating a broader more comprehensive intervention. The pilot project would be an invaluable learning process. As much as possible, however, this pilot project should mirror the variability in leadership job families. A significant part of the broader intervention will be articulating such families and identifying respective core, group, and task competencies. An opportunity to assess the methodology used for this purpose would be extremely beneficial to the CF.



## **Concluding Comments**

There are many generic leadership competency models. Some models have been developed using rigorous methodological procedures, whereas others have been developed using a more intuitive approach. The procedures we have outlined will result in a competency model that will meet all professional and legal guidelines. We have balanced the practical implementation concerns with the appropriate scientific theory and background. However, the development and implementation of a valid competency model remains a complex process requiring many resources. One of the most significant issues is the commitment and active support of senior organizational decision-makers. The importance of such support cannot be overstated. Champions of the process must be senior leaders that are capable of achieving the support of other leaders and key organizational decision-makers. An intervention led solely by CFLI will not be successful; Current leaders will have to take ownership of the process and drive the process. The CFLI needs to play a significant role in fostering this ownership.

The development of a valid leadership competency model will provide the information needed to align many human resource processes with CF organizational objectives. At a minimum, more targeted assessment and development processes can be developed. A consensual understanding of important leaders competencies will allow the CF to determine which competencies are amenable to self-directed learning and which ones are more suited for inclusion as selection criteria. Furthermore, some competencies that are amenable to training might require long-term development, whereas other competencies may require a shorter developmental period. In sum, a well-developed competency model will provide the foundation for building human resource services that will prepare members for future CF leadership challenges.

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