Investigation of the Meaning of Knowledge Creation, Learning and Collaboration in the Canadian Military

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Context of this Research

• With the present RMA, the way of conducting military operations requires frequent and rapid adaptation

• The military profession is subject to a drastic transformation

How is professional military expertise built, shared and transmitted in the Canadian Forces (CF)?
Research Objectives

• Focus:
  – A portray of current KM practices in the CF in regards to:
    • *Creation and production of knowledge*
    • *Ways of collaborating and sharing*
    • *Means by which militaries learn*

• Means:
  – To compare the meanings of *Knowledge Creation, Collaboration and Learning* in the KM literature and in the CF – at both levels: senior management & practitioners

• Expected Benefits:
  – To bring new insights

  identification of challenges and directions for KM strategies, programs and initiatives
Research Design

- Selection of an ontological model to convey all meanings

- Gathering of Meanings
  - From a literature review
  - From structured interviews with militaries

- Analysis and Findings
Generic Concept Card Attributes

Concept Name

Related Concepts
(1, 2, ..., n)

Objectives/Purposes

Context
(Circumstances/Environments)

What this occurs?

Actors (Who are involved?)

Enablers & Barriers

Benefits & Drawbacks

Other Comments

Discussions

Card Identifier

What is it:

Synonyms

What it is not:

Antonyms

Nuances (in meaning)

Examples (Types of instances)

Part-of (higher class)

Contains (includes what:)

Additional Specifications

Name of Related Concept

Type of Relation (Synonym, Antonym, Brother, Parent, Child or simply Related)

Definition

Specifications

Related Concepts

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Final Sample Distribution

- **HIGH-LEVEL SENIOR MANAGEMENT**
- **SENIOR-RANKED MILITARY OFFICERS**
- **JUNIOR-RANKED MILITARY PRACTITIONERS**

**LEGEND:**
- AIR FORCE
- ARMY
- NAVY
- JOINT

**KNOWLEDGE CREATION**

**COLLABORATION**

**LEARNING**

RRDC Valcartier • DRDC Valcartier
Consolidated Card Example

Learning occurs when external significant event happen and at the same time it is a continuous process.

Rapidity in the sequence of changes and limited time force a superficial learning.

There are four pillars in learning: Education, Training, Experience and Self-development.

To allow more time to focus and to find a balance between tops and institutional operatives (4/8)

Learning will not be improved by technology and on-line courses (2/8)

Def: Passive Learning: Internal individualized process (New ideas are produced, passive influence) (5/8)

Def: Action Learning: Pro active (Through doing, using Knowledge, training, validating ideas) (5/8)

Links: Both are essential (3/8)

Def: Reproducing learning: repetition, basic training, mechanical (5/8)
K-Creation Ontology – Literature Review
K-Creation Ontology – Mapping with Findings from CF Survey

Knowledge Creation:
Meaning:
Gathering, analyzing, interpreting and adapting information to cope with new situations
Collaboration Ontology – Literature Review

Collaboration

- Interorganizational collaboration
- External collaboration
- Knowledge network
- Network
- Working relationships among actors
- Solicitation
- Library
- Virtual team
- Interacting through communication technology
- Through communication technology
- Community of practice
- Online community
- Community of interest
- Group of people engaged in sharing ideas
- Within the organization
- Team (and teamwork)
- Shared obj. interdependent tasks
- Reciprocal access to common content or data
- General request for help
- Means of
- Transfer of knowledge between firms
- Includes
- Means of
- Means of
- Means of
- Means of
- Occurs by
- Includes
- Includes
- Includes
- Includes
- Can be
- Can be
- Can be
- Can be
- Group of people that share an interest in a particular domain (larger than “of practice”)
- Partners who exchange strategic knowledge
- External knowledge network
- Learning

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Collaboration Ontology – *Mapping with Findings from CF Survey*

**Collaboration:**

**Meaning:**
Working towards common goals with a common understanding
Learning Ontology – Literature Review

Learning

- Reproductive learning
  - Reproduce existing practices
  - Applying contracted knowledge
  - Create new practices
  - Meet job requirements develop career potential
- Reflective learning
- Transformative learning
- Individual learning
- Team learning

Techniques, methods and tools

- Network learning
- Organized learning communities
- Level of learning
- External learning
- Strategic, the total is more than the sum of parts
- Low level learning
- High level learning

Collaborating for learning

- Communities of practice
- Knowledge network
- Learning ecology
- Group-based approach
- Related

Context of learning

- Learning through authorities
- Learning by watching
- Means of learning

Social

- Engaged
- Role playing
- With social interactions

Contextual

- Active
- Ownership
- Self awareness
- Builds on existing knowledge

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Learning Ontology – Mapping with Findings from CF Survey

Learning:
Meaning:
Gaining knowledge and acquiring new competencies and skills
To be more efficient in terms of achieving CF missions and meeting operational goals

When external significant events happen

Constantly on-going

Organizational Leadership (Communicating vision & strategies, promoting best practices)

Organisational Positive Culture (Progressive, supporting, opportunities for career development)

Cultural Elements (Conflicting priorities, fear of change, old paradigm, stovepiped structure)

Resources constraints (Time, human, cost)

Commonalities Between the Three Main Concepts

People in the workplace (superiors, peers, subordinates)

Mentioned by senior respondents - External organizations (Agencies, partners, industry, academic institutions) and other nations

Leads to a more innovative, learning and adaptable organization that helps to provide situational awareness and to reduce surprises

All processes are time consuming

Benefits

Commonalities

KNOWLEDGE CREATION

COLLABORATION

LEARNING

Actors

Enablers

Barriers

Objectives/ Purposes

Context (Circumstances)
Other Concluding Observations

• Willingness from High-Level Senior Mngt to communicate the vision and to institutionalize some missing KM practices (according to the literature review)

• Enablers & Barriers: Factors not mentioned
  – Technology
  – Security

• Organisational knowledge may lack in stability because of the high rotation rate
  – Effect on learning and collaboration
  – Effect on searching for information & expertise

Also:

• *Pride in the profession of being a military*
• *Warm reception from all military respondents*
Future Research Work

• To perform additional cross-analyses:
  – Hierarchical level of respondents
  – Military environments (Land, Air, Navy, Joint)
• To Pursue the development of this ontology-based methodology to capture soft organizational factors
• To typify the learning styles in the military profession
• To investigate the requirements to ensure efficient knowledge transfer to ease personnel rotations
Tak!
Thank you!
Merci!