

Knowledge Management and the National Training Framework

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This document is designed to inform vocational education and training (VET) sector staff undertaking Reframing the Future activities about the connections between knowledge management and implementing the National Training Framework (NTF). It is an introduction to knowledge management, dispelling the myth that knowledge management is a technology-driven activity and highlighting the value of managing and valuing the existing knowledge of VET practitioners.

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What knowledge is needed in VET?

Reframing the Future is the staff development and change management program funded through the Australian National Training Authority (ANTA) and designed to assist the implementation of the NTF. Research summarised in the report *High-skilled High-performing VET* (Mitchell & Young, 2001) found that the development of a fully integrated national VET system requires the development of

- new staff skills;
- new relationships with industry; and
- new organisational cultures and structures.

To implement the national VET system and to develop new skills, relationships and structures, extensive knowledge is needed. Both VET organisations and VET staff need knowledge about a wide range of topics, including

- industry's current and future training needs
- individual learners' needs
- options for the preparation, delivery and assessment of training
- quality, audit and compliance issues related to the Australian Quality Training Framework.

This raft of knowledge needs to be managed, in that it needs to be created, distributed, acquired, shared, reviewed, used, stored and measured by VET staff and embedded in VET organisations.

What is knowledge?

Before defining knowledge management, it is worthwhile defining the concept of knowledge. Standards Australia (2001) defines knowledge as follows:

Knowledge is the body of understanding and skills that is mentally constructed by people. Knowledge is increased through interaction with information (typically from other people). (p. 7)

Gamble and Blackwell (2001) suggest that there are three different types of knowledge:

- Embodied knowledge: undocumented information in human beings such as the intuition, empathy and experience that enables us to make decisions.
- Represented knowledge: knowledge mostly contained in data and documented information that is rightly the basis for much decision-making.
- Embedded knowledge: the knowledge that exists in processes, products, rules and procedures. (p. 13)

Standards Australia (2001) identifies five different types of knowledge, partly overlapping with Gamble and Blackwell:

- Tacit knowledge: knowledge that includes aspects of culture about 'ways of doing things'.
- Explicit knowledge: knowledge that is recorded, e.g. in a document or other medium.
- Non-declarable knowledge: tacit knowledge which people use to do things but find difficult to articulate.
- Embedded knowledge: knowledge contained in the routines or procedures of an organisation.
- Other dimensions: e.g. individual, group or organisational knowledge. (pp. 7–8)

All these different types of knowledge exist within Registered Training Organisations (RTOs) and are relevant to VET organisations implementing the national training system, and all these types of knowledge need to be managed in VET.

Integrating the different types of knowledge

Davenport and Prusak (1998) provide a definition of knowledge that integrates the different types of knowledge outlined above:

Knowledge is a fluid mix of framed experience, values, contextual information, expert insight and grounded intuition that provides an environment and framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organisations it often becomes embedded not only in documents or repositories but also in organisational routines, processes, practices and norms. (p. 5)

The Davenport and Prusak definition highlights two matters relevant to VET:

- firstly, that knowledge is fluid, so managing it is a process that never stops;
- and secondly, that knowledge is embedded not just in individuals, but also in organisations, so organisational processes need to be managed as well as individuals. Organisations exploit knowledge by building capabilities and competencies (Carlisle, in Little et al, 2002, p. 126).

Technology as a knowledge management tool for VET professionals

Recent research (e.g. McDermott, 2000; Cohen & Prusak, 2001) shows that knowledge management, while taking advantage of technology such as databases, is dependent on cultural issues within an organisation, such as the creative use of knowledge by practitioners within the organisation. For instance, McDermott (2000) argues that 'the art of professional practice is to turn information into solutions' (p. 24). He shows that professionals face a stream of problems:

...when to run a product promotion, how to estimate the size of an oil field, how to reduce the weight and cost of a structure. To solve these problems, professionals *piece information together, reflect* on their experience, *generate* insights, and *use* those insights to *solve* problems. (p. 24)

McDermott (2000) concludes that thinking is at the heart of professional practice and knowledge is the residue of thinking: knowledge comes from experience. (pp. 24–25)

Table 1: Conventional and knowledge-based understandings of organisations (Carlisle, in Little et al, 2002, p.123)

Key issues	Conventional understandings	Knowledge-based understandings
Why do organisations exist?	To process environmental information To deal with problems arising from informational imperfections To reduce uncertainty To meet shareholder needs	To create and exploit knowledge
How do we understand human nature?	People are rational, calculating and self-interested individuals	People are creative, visionary and collectively ambitious
What is the basis for human relationships in and between organisations?	Explicitly or implicitly contractual	Commitment based upon shared visions, meanings and identities.

VET practitioners can be reconceptualised as professionals who piece information together, reflect on their experience, generate insights, and use those insights to solve problems.

Information technology can assist such knowledge management by providing cues for identifying what information to capture, constructing taxonomies for organising information, and determining access (McDermott, 2000, p. 22), but the human processes that occur within an organisation, such as enquiring, discussing, reflecting and sharing, are more critical to the growth of knowledge.

This finding about the fundamental human aspects of knowledge management is significant for VET. The research suggests that the key to knowledge development and application within organisations is to support professionals and their communities. Technology is simply one of the enabling mechanisms available. McDermott (2000) suggests that primary attention not be given to technology but that managers do the following:

Identify the community that cares about a topic and then enhance their ability to think together, stay in touch with each other, share ideas with each other, and connect with other communities. (p. 28)

Interestingly, McDermott (2000) cautions about the limitations of relying on documentation and electronic linkages for leveraging knowledge in an organisation:

It is not surprising that documenting procedures, linking people electronically, or creating websites is often not enough to get people to think together, share insights they didn't know they had, or generate new knowledge. (p. 28)

Such research about the value of getting people to think together, share insights and generate new knowledge directly underpins all of Reframing the Future's sub-programs, as discussed below.

What are knowledge-based VET organisations?

VET organisations are knowledge-based, as they are typically immersed in knowledge about Training Packages, assessment, industry and enterprise training needs and training design and delivery. However, VET organisations, as with all contemporary organisations, need to become more and more consciously knowledge-based: 'Firms exist

to facilitate the acquisition, creation, exploitation and transfer of useful knowledge' (Little et al, 2002, p. 124). A challenge for VET organisations is to create and transfer knowledge in a cost effective, efficient way that provides superior service for clients and customers.

Carlisle (in Little et al, 2002, p. 123) contrasts the knowledge-based organisation with the conventional organisation, in Table 1 above.

Using Carlisle's terminology, for VET organisations to become even more knowledge-based, management attention needs to be forward-looking, focused on the creation and use of knowledge, not backward-looking, fearing change. VET organisations need to be forward-looking in response to changes in industry and enterprises brought about by new client demands and the emergence of new technologies, new alliances and different business models. Using Carlisle's concepts, managers of knowledge-based VET organisations need to continually ask themselves why do VET organisations exist, how can we understand our staff better and what is at the base of the relationships between staff and clients?

What are knowledge workers in VET?

Knowledge work is needed when a body of related information has to be collected, applied and built upon for subsequent action. (Cordata, 2001, p. 101) The requirement to implement the national training system requires knowledge workers in VET: it requires staff who are skilled in knowledge collection, sharing and application.

The pressure on VET staff to be effective knowledge workers is increasing, as the body of knowledge within VET expands, driven by an increased understanding of industry training needs, and rising client expectations, growing competition and the emergence of innovative services in a competitive training market. The concept of the VET professional needs to be extended to acknowledge the increasingly sophisticated knowledge work required of VET staff.

What is knowledge management?

While the term 'knowledge management' is popular, there are many interpretations of its meaning. Knowledge management is not the mechanical organisation of knowledge; nor is knowledge management solely about

content. (Gamble & Blackwell, 2001, p. 13). Knowledge management is a system and a process, not just content. (Cordata, 2001, p. 104) Knowledge management is the systematic processes by which knowledge needed for an organisation to succeed is created, captured, shared and leveraged. (Rumizen, 2002, p. 9)

An alternative definition to Rumizen's is provided by Standards Australia (2001):

Knowledge management is a multi-disciplined approach to achieving organisational objectives by making the best use of knowledge—it focuses on processes such as acquiring, creating and sharing knowledge and the cultural and technical foundations that support them. The aim of knowledge management is to align knowledge processes with organisational objectives. (p. 7)

Reasons why organisations commit to knowledge management include:

- to improve the quality of available knowledge within the enterprise and share it across the operating units;
- to improve responses to competitive forces;
- to reduce or control costs;
- to accelerate rates of innovation within an enterprise;
- to reduce the loss of intellectual assets caused by turnover in employees. (Cortada, 2001, p. 110)

All the above goals are relevant to VET organisations who are implementing the National Training Framework.

What are the knowledge management components of Reframing the Future?

Mitchell and Young (2001) proposed five sub-programs for Reframing the Future that have knowledge management as a core component. The knowledge management components of each of the five sub-programs that are now part of Reframing the Future are as follows:

- Staff Development sub-program: 'knowing what' underpinning the development of 'knowing how' competencies.
- Strategic Management and Change Management sub-program: development of knowledge-based organisations, with ambitious strategic intent and unique capabilities in knowledge processes. (Little et al, 2002, p. 128)
- Policy Engagement sub-program: knowledge sharing and creation.
- Communities of Practice sub-program: knowledge sharing, creation and application.
- Information and Research Dissemination: knowledge acquisition, storage, retrieval, analysis and application.

Which path to take?

Knowledge management is an ongoing process, to which all VET professionals can contribute. For those who wish to develop a structured approach within an RTO, a sequential whole-of-organisation knowledge management strategy is provided by Standards Australia (2001). For those who wish to make an immediate, concrete contribution to knowledge sharing, creation and application, Reframing the Future offers VET professionals the opportunity to participate in the five sub-programs outlined above or to use the resources provided by these sub-programs (see <http://reframingthefuture.net>).

There is no single or simple formula for knowledge management and the journey is different for everyone:

Organisations will approach the field of knowledge management in a number of ways and arrive at different destinations. Most experiment and continuously iterate... (Standards Australia, 2001, p. 10)

Whatever path is taken, for the National Training Framework to flourish, knowledge management needs to become a conscious part of every VET professional's life and every VET organisation's existence.

References and further reading

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