INTRODUCTION TO KNOWLEDGE MANAGEMENT

Timeframe:	10 hours
Learning outcomes:	• Evaluate the contributing factors that lead to the need for Knowledge Management • Interrogate key concepts regarding knowledge management in organisations
Recommended reading:	• A critical review of knowledge management as a management tool (Mårtensson, 2000) • Conceptual approaches for defining data, information and knowledge (Zins, 2007) • The five-tier knowledge management hierarchy (Hicks, Dattero and Gallup, 2006) • The use of tacit knowledge within innovative companies: knowledge management in innovative enterprises (Seidler-de Alwis and Harmann, 2008)
Multimedia:	• Knowledge Management – Managing tacit and explicit Knowledge. [Video clip] (John, Coventry and Latham, 2010)
Section overview:	If knowledge management is to add value to an organisation, an understanding of the meaning of the concept "knowledge management" is imperative for all stakeholders. Knowledge management is aimed at the effective management of the knowledge assets of the organisation. This section provides an overview of this important concept and examines the question of whether knowledge management is a new phenomenon.

Introduction

To conceive of knowledge as a collection of information seems to rob the concept of all of its life... Knowledge resides in the user and not in the collection. It is how the user reacts to a collection of information that matters.

(Churchman cited in Malhotra, 2002a)

Increasingly, organisations are coming to realise how important it is to retain knowledge. This is because organisations can use knowledge as a form of competitive advantage in the marketplace. Organisational knowledge can reside in many different places, including the culture of the organisation (the way things are done in the organisation), its databases and filing systems, and the minds of its people; in other words, organisational knowledge is distributed right across an organisation (Frost, 2012). This, combined with poor communication between the various units or sections of an organisation, often results in work being duplicated and time and money wasted. This can be very taxing on already limited resources.

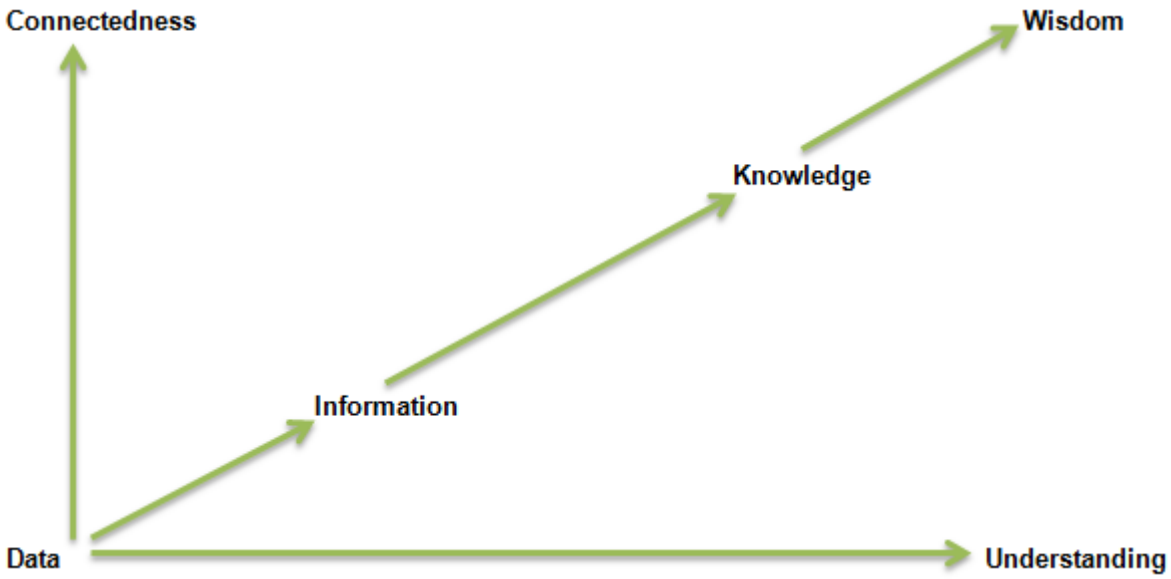
Success in our fast-paced global economy depends on the speed and efficiency with which organisations can utilise all their resources to ensure optimum output and quality. Organisations that retain and use their knowledge as an asset can increase the working capacity of the entire organisation's operations (Jassim, 2001: 390).

Knowledge management has therefore become one of the most important aspects in organisations (Frost, 2012) as it translates directly to profit and efficiency. However, before one can begin practising successful knowledge management, one needs to understand the basics: What is knowledge management? To understand knowledge management is to understand several key concepts.

Key Concepts: Data, Information, Knowledge and Wisdom

The core concepts within this subject area are: Data, information, knowledge and wisdom. Consider **Figure 1.**

FIGURE 1: DATA, INFORMATION, KNOWLEDGE AND WISDOM



(Adapted from: Bellinger, Castro and Mills, 2004)

Based on Figure 1, it can be assumed that data is needed to create information, which is needed to create knowledge, which is needed to create wisdom. However, what are data, information, knowledge and wisdom within this context?

Carefully study the definitions in the table overleaf.

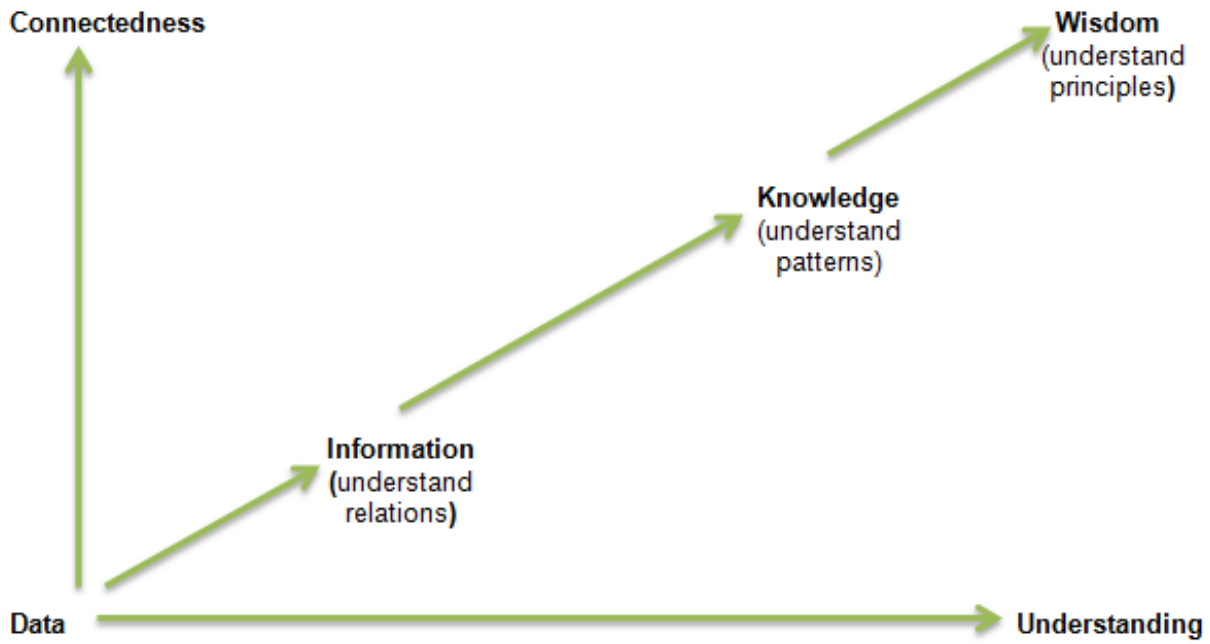
TABLE 1: DATA, INFORMATION, KNOWLEDGE AND WISDOM DEFINITIONS

Data	Raw material of information (e.g. statistics, weekly activity sheets).
Information	Data organised and presented (weekly productivity reports).
Knowledge	Information understood and interpreted (analysis of productivity reports to create a new work distribution schedule).
Wisdom	Integrated knowledge and understanding (a new work distribution schedule).

(Adapted from: Harris, 2011)

Now, consider the application of the information in **Figure 2.**

FIGURE 2: DATA, INFORMATION, KNOWLEDGE AND WISDOM APPLIED



(Bellinger, Castro and Mills, 2004)

Relationships between Data, Information, Knowledge and Wisdom

The Trainmor-Knowmore project team (2008) illustrates the connectivity between data, information, knowledge and wisdom (see Figure 3). The aforementioned team use a practical example, which explains the concepts as follows:

Business Situation:
The Quality Control function of a manufacturing process in a wine-making factory.

Data:
The data might concern numerical quantities of process elements that could include bottle weight, data about the wine colour as well as data about the percentage of wine ingredients. Only when these sets of data are put in the right order or in a more specific and more organized framework will they have a meaning.

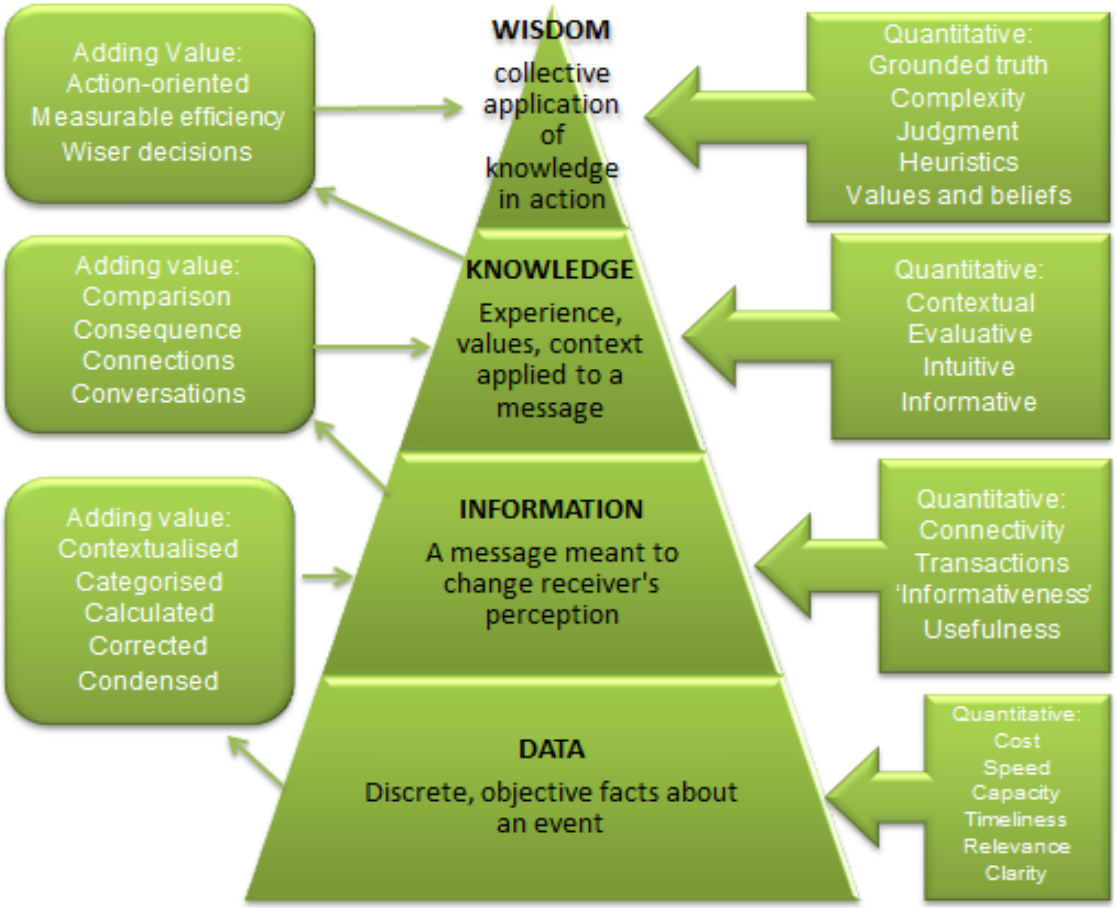
Information:
In this example information could be an excel data sheet that describes several production elements of a specific red wine lot. For example, the title of the sheet could be: Weight of bottles for Red Chardonnay, Lot No 12445, produced on 14/6/2006. It is obvious that this sheet with organized information has a specific purpose (to control the bottle weight between acceptable limits) and it is associated to a particular production element or object (Red Chardonnay) and production event (bottles filled for lot No 12445 on 14/6/2006).

Knowledge:
When the particular knowledge associated with the above data and information is discussed it could be easily realized that:

1. Someone, who is expert in quality statistical control, must interpret the data sheet. This knowledge-based process apart from the expert insight requires a fluid mix of framed experience, values, and contextual information.
2. In addition, this person, in order to make his decision, needs a framework for evaluating this information. He could compare it with other lots of wine or with the acceptable weight limits of a wine bottle imposed by state regulations. The final decision of the quality manager could be to send the bottles back for refilling or to rank the lot as quality A or quality B and then decide to which markets the lot should be pushed to.
3. Only this expert was able to decide how the wine lot in question varied from the past lots and from the quality standards and why this lot should be pushed to Market A (more strict customers) or to Market B (not so strict customers).

Wisdom:
In this example the corresponding wisdom could be described as the ability of the quality expert or quality department to improve the whole quality control process by reviewing the quality standards again as well as by reviewing the required control process taking into consideration previous knowledge and experience. In any of the above-mentioned cases the company will improve the quality control process.

FIGURE 3: RELATIONSHIPS BETWEEN DATA, INFORMATION, KNOWLEDGE AND WISDOM



(Trainmor-Knowmore Project Team, 2008)

We will revisit this issue later in this section.

Read the article indicated below. It is a very technical article and we will return to it later in this section.

- Conceptual approaches for defining data, information and knowledge (Zins, 2007: http://www.success.co.il/is/zins_definitions_dik.pdf

Knowledge

Before we investigate the meaning and application of knowledge management within any organisation, we need to understand, in more detail, what is meant by the term “knowledge”. Below are some definitions from different sources.

Tiwana (2000: 5) defines the term knowledge as:

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 but also in routines, processes, practices and norms.

Hicks, Dattero and Galup (2006: 20), by contrast, list various definitions of knowledge:

- The ability to make decisions and act accordingly to achieve competitive advantage and become leaders in the industry
- Information in context and an understanding of how to use it to achieve dominance in the market
- Expertise appropriate for a specific field which lead to competitive advantage becoming an absolute advantage that is difficult to copy
- Things that drive people to action
- Personal belief that increase capacity and effective action
- Authenticate information experienced as truth
- Integrated information
- Actioned information that adds value to an organisation

Despite their differences, certain overarching elements are eminent in these definitions:

- **Knowledge enables action:** Knowledge is enabling. It places decision makers in a position to take action after an analysis of the information.
- **Before knowledge can be gained, something needs to be in place:** Knowledge is generated from information, which is generated from data. This assumes that knowledge is leveraged from something that “was there” already.
- **It has an unrelenting dependence on relationships:** Information is created in organisations between more than one person; this is contingent on the existence of working relationships.
- **It is specific:** Because knowledge is created from information, it is specific to an issue (as seen in the example of the wine factory).
- **It helps produce more information and data:** The creation of knowledge is cyclical; once knowledge is used, it becomes data, which can be leveraged, again.
- **There are different types of knowledge:** Knowledge is explicit, implicit or embedded (we will discuss this later).