BSBINM501 Manage an information or knowledge management system

Release 1

Learner guide

Aspire learning resources

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Aspire Version 1.1

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BSBINM501 Manage an information or knowledge management system Release 1

Level 1, 464 St Kilda Road
MELBOURNE VIC 3004 AUSTRALIA
Phone: (03) 9820 1300

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Contact details

Participant
Name:
Start date:
Phone number:
Email:
Work location
Name:
Address:
Postal address:
Workplace supervisor name:
Phone number:
Fax:
Email:
Registered Training Organisation (RTO)
Name:
Address:
Postal address (if different):
Phone number:
Fax:
RTO contact name:
Mobile:
Email:

Contents

Before you begin

This learner guide is based on the unit of competency *BSBINM501 Manage an information or knowledge management system*, Release 1. Your trainer or training organisation must give you information about this unit of competency as part of your training program. You can access the unit of competency and assessment requirements at: www.training.gov.au.

How to work through this learner guide

This learner guide contains a number of features that will assist you in your learning. Your trainer will advise which parts of the learner guide you need to read, and which practice tasks and learning checkpoints you need to complete. The features of this learner guide are detailed in the following table.

Feature of the learner guide	How you can use each feature
Learning content	Read each topic in this learner guide. If you come across content that is confusing, make a note and discuss it with your trainer. Your trainer is in the best position to offer assistance. It is very important that you take on some of the responsibility for the learning you will undertake.
Examples and case studies	Examples of completed documents that may be used in a workplace are included in this learner guide. You can use these examples as models to help you complete practice tasks and learning checkpoints. Case studies highlight learning points and provide realistic examples of workplace situations.
Practice tasks	Practice tasks give you the opportunity to put your skills and knowledge into action. Your trainer will tell you which practice tasks to complete.
Video clips	Where QR codes appear, learners can use smartphones and other devices to access video clips relating to the content. For information about how to download a QR reader app or accessing video on your device, please visit our website: www.aspirelr.com.au/help 
Summary	Key learning points are provided at the end of each topic.
Learning checkpoints	There is a learning checkpoint at the end of each topic. Your trainer will tell you which learning checkpoints to complete. These checkpoints give you an opportunity to check your progress and apply the skills and knowledge you have learnt.

Foundation skills

As you complete learning using this guide, you will be developing the foundation skills relevant for this unit. Foundation skills are the language, literacy and numeracy (LLN) skills and the employability skills required for participation in modern workplaces and contemporary life.

The following table outlines specific foundation skills noted for your learning in this learner guide.

Foundation skill area	Foundation skill description
Reading	• Researches and critically analyses documentation from a variety of sources to determine requirements
Writing	• Prepares and produces documentation for a specific audience using clear and detailed language to convey explicit information, requirements and recommendations
Oral communication	• Presents information using structure and language to suit the audience • Uses active listening and questioning and reading of verbal and non-verbal signals to clarify information and to confirm understanding
Navigate the world of work	• Takes full responsibility for following policies, procedures and legislative requirements and identifies organisational implications of new legislation or regulation • Modifies or develops organisational policies and procedures to comply with legislative requirements and organisation goals
Interact with others	• Implements strategies for a diverse range of colleagues and clients in order to build rapport and foster strong relationships • Collaborates with others sharing information to build strong work groups and avoid behaviours that are not conducive to a productive environment • Elicits feedback and provides feedback to others in order to improve self or workgroup behaviours
Get the work done	• Accepts responsibility for planning and sequencing complex tasks and workload, negotiating key aspects with others and taking into account capabilities, efficiencies and effectiveness • Monitors progress of plans and schedules and reviews and changes them to meet new demands and priorities • Applies systematic and analytical processes to address problems and make decisions in complex situations • Investigates new and innovative ideas as a means to continuously improve, work practices and processes • Uses and investigates new digital technologies and applications to manage and manipulate data and communicate effectively with others

What do you already know?

Use the following table to identify what you may already know. This may assist you to work out what to focus on in your learning.

Topic	Key outcome	Rate your confidence in each section
Topic 1 Organise learning to use information or knowledge management system	1A Identify knowledge management system learning needs	❑ Confident ❑ Basic understanding ❑ Not confident
	1B Identify resources required for the use of a knowledge management system	❑ Confident ❑ Basic understanding ❑ Not confident
	1C Organise and facilitate learning activities	❑ Confident ❑ Basic understanding ❑ Not confident
	1D Promote and support the use of the system throughout the organisation	❑ Confident ❑ Basic understanding ❑ Not confident
	1E Monitor and document the effectiveness of learning activities	❑ Confident ❑ Basic understanding ❑ Not confident
Topic 2 Manage the use of information or knowledge management system	2A Ensure knowledge management systems are compliant, effective and efficient	❑ Confident ❑ Basic understanding ❑ Not confident
	2B Address implementation issues and problems as they arise	❑ Confident ❑ Basic understanding ❑ Not confident
	2C Monitor integration and alignment with data and information systems	❑ Confident ❑ Basic understanding ❑ Not confident
	2D Collect information on achievement of performance measures	❑ Confident ❑ Basic understanding ❑ Not confident
	2E Manage contingencies by accessing technical specialist help	❑ Confident ❑ Basic understanding ❑ Not confident

Topic	Key outcome	Rate your confidence in each section
Topic 3 Review use of the information or knowledge management system	3A Analyse effectiveness of the management system	❑ Confident ❑ Basic understanding ❑ Not confident
	3B Review the business and operational plan and determine intended outcomes	❑ Confident ❑ Basic understanding ❑ Not confident
	3C Make recommendations for improvement to the system, policy or work practices	❑ Confident ❑ Basic understanding ❑ Not confident

Topic 1
Organise learning to use information or knowledge management system

The information management system is the heart of any organisation. Information flows in and out in a continuous stream, and if there is any disruption or failure in the information it can have devastating consequences for your organisation. To ensure the system functions efficiently, make certain those using it have the ability to operate within its environment.

Information systems started well before the proliferation of computers. Managers and entrepreneurs understood that corporate success depended on easy access to knowledge in areas such as:

- marketing and production
- customer relations and process management
- internal and external environmental conditions
- competitor activity and behaviour
- technological developments
- research and development.

The introduction of technology has made it easier to collect, store, retrieve, analyse and present data in these areas.

In this topic you will learn how to:

1A Identify knowledge management system learning needs

1B Identify resources required for the use of a knowledge management system

1C Organise and facilitate learning activities

1D Promote and support the use of the system throughout the organisation

1E Monitor and document the effectiveness of learning activities

1A Identify knowledge management system learning needs

Access to accumulated knowledge and experience assists the performance of staff and managers throughout an organisation. The development of technically complex computerised systems has allowed access to a breadth and depth of data previously unimaginable with paper-based records. These developments have given rise to a plethora of new terminology including management or marketing information systems (MIS), customer information systems (CIS), customer relationship management (CRM) systems and knowledge banks or knowledge management systems (KMS).

Regardless of the name or application, the purpose of information systems is to provide a central hub for personnel to input or access relevant business information to improve the effectiveness of decision-making and efficiency of operation and implementation.

Components of information management systems

Information or knowledge management systems comprise equipment, strategies, methods, practices, procedures and processes. These can be used formally and informally by individuals and the organisation to identify, create, represent, collect, analyse, organise, store, retrieve, distribute, share and draw on information and knowledge valuable to the work of the organisation.

Systems that can take multiple forms include:

- IT systems: databases, intranets, workplace forums and websites
- procedure manuals
- corporate policies
- workshops and professional networks.

Identify training needs

Personnel in different positions within an organisation have different requirements for using and inputting into a knowledge management system. You need to understand the requirements of people at different levels in the organisational structure. For example, the need to understand and use the system is different for a storeperson compared to a department manager.

The storeperson may need to extract and, if required, input any changes to the procedure for ordering pencils; the manager may need to be aware of this procedure but also needs to be able to extract information on the quantity of pencils that have been purchased and the expenditure made.

When determining training needs, ask:

- What knowledge is required to perform in the specific position?
- What does the person employed in that position currently know?

Training needs analysis

A training needs analysis (TNA), also known as training gap analysis, is a formal process used to identify training requirements and the most cost-effective means of meeting those requirements. The first step is to identify what skills, knowledge and attitudes (SKAs) are required to successfully fulfil the tasks for the relevant positions within the organisation. This is also known as competency mapping.

Competency mapping requires the job statement for a position to be broken down to the individual task level then the SKAs identified.

Competency map analysis

A competency map provides benchmarks against which the competency of personnel can be assessed. By identifying any gaps between SKAs and the benchmarks, training can be targeted towards the required areas. For example, a person may have excellent interpersonal skills and have developed a sound working relationship with customers, but may need further training to use a company's databases to retrieve information quickly.

Why is this important? Training is a major component of any organisation's expenditure both financially and in work hours, and reducing redundant training can be a major cost saving.

The training needs analysis (TNA) can be a simple or complex process depending on the type of analysis required. It is important that the TNA is well designed and conducted. A poorly conducted analysis may lead not only to redundant training but also to a skill shortage remaining after the training.

Advantages of a well-designed and conducted TNA
• Learning can be directly related to organisational objectives. • Learning can be targeted at specific requirements. • Identified learning needs can be prioritised. • Personnel only spend time on training programs appropriate to them. • Redundant training or training of little value can be avoided. • Financial resources can be allocated effectively and efficiently. • Improved training (return on investment) can be achieved. • Long-term training and professional development strategies can be formulated.

Information formats

Knowledge management systems can mirror paper-based knowledge formats or involve layered intuitive menu systems that allow for information to be easily accessed, retrieved or stored. The format used in your organisation depends on its ontological and taxonomic culture; that is, its approach to knowledge and information and the way knowledge is traditionally classified and stored.

Stakeholder requirements

The requirements of the members within an organisation are relatively easy to identify; but what about those of external agencies and entities?

Stakeholders may include:

- customers or clients
- unions or other employee representatives
- government or commercial funding bodies
- industry, professional and trade associations
- regulatory bodies and authorities
- sponsors
- tender providers, suppliers and contractors.

Stakeholder learning needs

Customers, suppliers and other stakeholders may need access to your organisation's knowledge management system.

Consider the last time you rang a company and spoke to a real person without having to work through a number of options menus. The use of the telephone as a contact between customers and organisations has evolved with the proliferation of automated call-centre systems. In some cases transactions are completed without any person-to-person contact at all. Educating clients to use the features of your system is very important. Their ability to use the system is a major factor in their level of satisfaction and therefore long-term retention.

There are times when managers, stakeholders or staff may have deficiencies in their knowledge of a management system; this could be because of the stakeholder's willingness, desire or time to learn, or the learning capacity of the organisation.

Web-based learning needs

Web-based customer service is an area that has experienced considerable evolution and become a popular avenue for customers to conduct business. If a customer experiences difficulty in using the features of a system they will look for alternatives. For an organisation to maintain a competitive advantage it must identify what the client needs to know in order to effectively use the systems provided to them. Internet banking and online auction sites provide examples of this need.

Suppliers, contractors and those tendering to your organisation may require the use of your KMS to meet their obligations (contractual or otherwise). To protect proprietary knowledge, data supplied to these stakeholders should be secure and only to a level sufficient to complete transactions or other specific work.

Stakeholder learning needs

Sponsors and funding bodies often need access to organisational information to keep up to date with projects, programs or operations they are funding or supporting. The level of access may be governed by their involvement and legislative requirements for the type of funding involved. Freedom of information and privacy legislation in these cases relates only to the knowledge directly affecting the stakeholder. Other information does not have to be disclosed, particularly if the disclosure would compromise business integrity or fiscal health.

Access can be incorporated into charter documents such as the project plan and work contracts. To ensure that stakeholders have the ability to access the system, analysis of their requirements needs to be carried out and appropriate training designed to ensure they understand the procedures, policies and protocols.

Example: KMS

A US importer is a major supplier to several organisations. As part of their performance review they send out a survey to all their customers in an effort to highlight any problems they may be experiencing. It is only after their customer survey feedback is analysed that the organisation is even aware they have a problem in their communication system (specifically, their telephone service).

Management had assumed communication was sufficient and the information provided to its clients was satisfactory. In reality, their customers feel frustrated when trying to get through as they are constantly being put on hold and then still have to go through the main switchboard before being connected to the area they need to liaise with.

Practice task 1

Re-read the previous example of the US importer, then answer the questions that follow.

1. Suggest three ways that the company could manage the problems with its telephone system.

2. List three ways you would assess the learning needs of the personnel who answer the phone.

1B Identify resources required for the use of a knowledge management system

Identifying learning needs is the first step in developing effective and efficient learning activities. As a manager responsible for implementing the required training, you need to understand the types of knowledge required. The two categories of knowledge are tacit knowledge and explicit knowledge.

Tacit knowledge	Explicit knowledge
According to Nonaka and Takeuchi (1995), tacit knowledge is 'highly personal and hard to formalise. Subjective insights, intuitions and hunches fall into this category of knowledge.' Tacit knowledge is not easily shared. It cannot be codified, so therefore cannot be documented in manuals or on websites. Tacit knowledge can be thought of as 'know-how' rather than 'know-what'. Many of the things we do, utilise tacit knowledge of which we are not even aware. As children we learn to speak without formal training. But through education we formalise the use of language by applying grammatical rules. These rules are explicit knowledge as they can be articulated reasonably easily and the rules learned without experience.	According to Nonaka and Takeuchi (1995) explicit knowledge is that which 'can be expressed in words and numbers and can be easily communicated and shared in the form of hard data, scientific formulae, codified procedures or universal principles'. Explicit knowledge can be readily articulated or transmitted from one person to another. It is the skills and knowledge that can be documented and found in manuals or stored on web pages. Explicit knowledge may be procedures or job criteria; for example, dimensions, storage methods and management theories.

Effective learning activities

When selecting effective learning activities you need to identify the types of knowledge involved in the task. Most tasks have a tacit knowledge component; you can use experienced practitioners to provide tips and strategies based on their expertise. This means there needs to be some form of practical work involved such as projects, role-play, workplace tasks and on-the-job training. Be prepared with manuals, 'how to operate' lists and other explicit forms of learning.

Learning activities can include:

- coaching and mentoring programs, usually chosen for formal, long-term training
- helpdesks to rectify small knowledge gaps
- information sessions, briefings, workshops and training programs, often used for the introduction of new or changed systems
- paper-based or electronic/web-based learning opportunities for self-paced learning
- use of subject matter experts such as coaches and mentors to help other personnel use the system.

Financial resources

Financial resources are usually an initial consideration, particularly where training and training design is outsourced to external agencies. Human resources may appear self-evident; however, managers need to be aware of the hidden costs when it comes to human resources and training. Here is an example of some of the hidden costs of organisational training.

Hidden costs of training

How is their workload going to be covered or is it going to be left for them to catch up once they have completed their training?

If the learning activity requires expert workers or supervisors to conduct training session activities, what implications does that have on their workload?

Physical resources

The manager needs to plan for and document physical resources in order to develop a proposal or business case to secure sufficient funding. When submitting a request for finance it is often a requirement to show an estimated return on investment (ROI) and a benefit to the organisation. Here is an example of some of the considerations that may need to be looked at when undertaking training.

Considerations may include:

- Is there an appropriate learning environment in which to conduct the training?
- Are there sufficient computer terminals?
- Is there a training database, or do we have to conduct training on the live database?
- What consumables (pens, paper, whiteboard markers and so on) are required?

Methods to secure necessary resources

Gaining the use of scarce resources is a part of every manager's role. Training on systems that are either essential for compliance purposes or for the purpose of competitive advantage (and therefore profitability) are usually given a high priority.

Senior managers who maintain a task focus (as opposed to client focus) may not accept this level of priority until the proposal summarises the negative effects of not implementing the training. This is important to keep in mind when drafting your proposal for resources.

Once the resources have been identified, the manager is able to plan for their acquisition. The method chosen depends on the requirements for the training. Here are three methods a manager may use to secure necessary resources.

Operational priority

This approach to securing resources relies on the functional needs of the business. If the information system changes are significant and impact immediately on business profitability, then the priority of resource allocation is heightened.

Proposal

Internal proposals are commonplace. Senior managers are familiar with this form of request and will generally be looking for an appropriate rationale (the reason behind the training) and the net benefits (such as ROI or other measurable indicators).

Competitor reaction

If competitor activity such as the launch of a new interactive website or customer service model becomes known, approaching senior management with a briefing of a training model that depicts a quick turnaround usually gains adequate resources.

External funding options

Depending on the learning activities and training required, there may be external funding options available. Traineeships and some other required learning often have government or trade association incentives for the trainee and the organisation. A good source of information on government funding is the website: www.education.gov.au/funding.

Additionally, custom-designed courses offered through registered training organisations may still attract government funding. It is best to confer with your HR manager or directly with a training organisation to find out more.

Example: provide training

Harold has just started working in the general office at an engineering company. He has no formal education and some of the terminology he is expected to use is technical in nature. His managers realise this is an area that could cause problems and have therefore implemented weekly training sessions for their general staff, which include role-plays. This gives Harold and other staff the opportunity to ask questions and develop their formal knowledge. For general day-to-day issues the organisation has set up a helpdesk.

Practice task 2

Select a component of an information management system used in your organisation. This may be a component of the customer relationship management (CRM) system, management or marketing information system (MIS) or other knowledge database. Use this table to identify the resources required to train a single staff member on the system.

Resource	Requirement/s for the training
Human	
Financial	
Physical	
Time	

1C Organise and facilitate learning activities

As a manager with the responsibility to organise and facilitate the learning activities for your organisation's knowledge management system (KMS), there are a number of issues you need to consider.

The approach you use depends on a number of factors, including:

- group-based or individual learning activities
- formal qualifications attached to the activities
- legislative requirements.

Group-based or individual learning activities

The facilitation of learning may be different for a group of learners compared to one individual learner. Group-based activities are not a one-size-fits-all approach, as the individual learner's needs are used when developing the activity. However, they are only appropriate for explicit knowledge.

Group-based activities include:

- classroom-based training
- syndicate project work
- work group activities.

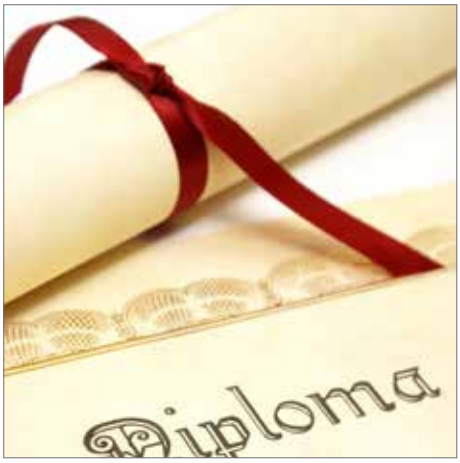
Individual learning activities

These are focused on the learner's goals, learning style and the learning context, and can incorporate explicit and tacit knowledge. Demonstration and imitation are some of the methods for passing on tacit knowledge. Here are examples of individual learning activities.

- Coaching and tutoring – job-focused and performance-orientated, designed to direct the learner to an end result. Tutoring is usually subject-centred and focuses on improving a specific knowledge or skill; it is often distance-based.
- Mentoring – can be formal or informal. It focuses on the person and learning along a career path. This method provides support for individual growth and maturity.
- Shadowing – the technique of monitoring and correcting skills gained by the person: it can provide a powerful source of knowledge consolidation.
- Buddying – requires a skilled co-worker to train the candidate on the job. This is a very common and relatively effective way of training an individual on an organisation's knowledge and information system.

Formal qualifications

If the learning activity is tied to a formal qualification, there are requirements for the delivery and assessment of the learning outcomes. Training and assessment must be conducted by qualified trainers and assessors from a registered training organisation (RTO) in accordance with the Australian Quality Training Framework (AQTF) guidelines. This approach offers an added incentive to undertake staff training within an organisation. Formal recognition within business training can usually be contextualised to suit the organisation's systems and processes.



Legislative requirements

When planning the facilitation or delivery of training, the requirements of federal and state/territory legislation must be complied with.

Requirements of legislation include:

- work health and safety (state and territory Acts)
- equity and diversity (federal Acts covering discrimination across sex, disabilities and cultural differences)
- the *Privacy Act 1988* (Cth) (federal requirements for the handling of personal information).

Program considerations

A manager needs to consider all possibilities when programming learning activities and needs to plan for contingencies that could affect the timing or completion of the activities. It is impossible to have a plan for every possible contingency, but consideration of the alternatives if, for example, the facility becomes unavailable or if time is shortened, is smart planning.

Here are several issues that may affect the scheduling of learning activities.

Length of the activity or training

The first consideration is the length of the activity or training and how long it is going to take to complete. If the training requires three days to complete, is it going to be completed in one block or one day a week for three weeks? Once the duration and format has been determined, a period needs to be found when the required resources such as facilities and trainers are available .

Type of training

Computer or web-based activities that require the use of the organisation's live database may need to be conducted during periods of low system use. This is to ensure the day-to-day users are not impeded in their work and activity is not affected by slow system operation or other problems caused by system congestion.

Facilities

The selection of facilities to conduct a learning activity is a major contributor to the effectiveness of the activity. If the learning activity is a workplace-based activity, the best place to conduct it may be in the workplace. This is not always possible due to risk management and other work health and safety requirements. In this case, training facilities away from the workplace should be designed to replicate the workplace environment.

Coaches and mentors

The selection of effective coaches and mentors is not as straightforward as you may think. Being a subject matter expert does not always translate into being a competent trainer. A coach or mentor needs to communicate well, not only through language but also by using concepts and ideas that may be more tacit. People skills are another consideration, as a coach or mentor is more effective if they can develop a rapport with the learner.

Mentors allow the learner to take responsibility for their own learning, act as a sounding board and give support to aid learning.

Coaches are focused on achieving a learning objective or a specific skill. A coach takes responsibility for directing the learner towards achieving a specific outcome by reinforcing or changing skills and behaviours.

Equity and diversity

Equity and diversity is not just about making sure there is wheelchair access and that there is nothing offensive in the workplace; it is also about recognising and valuing individual differences in the workplace or training environment, and about inclusiveness, recognising the needs of the individual, and developing strategies to allow them to meet the learning objectives. Every person is different and therefore has different needs; not all of these differences affect your facilitation strategy. Here are examples of individual needs that may have an impact on learning activities.

Individual needs include:

- literacy and numeracy
- English as a second language
- cultural backgrounds
- physical impairment (permanent and temporary)
- visual or aural impairment
- religious beliefs and practices
- intellectual abilities.

Example: changes to a CRM system

Brian runs the Australian-based training programs for a large multinational IT company. He operates within a budget but can request extra funding if the need arises. Such a need occurred during 2015 when the organisation implemented a significant change to its customer records management (CRM) system. The system was complex and integrated on several levels with the accounts, inventory and procurement systems. Training had to encompass all divisions of the company. The problems that faced Brian included severe time constraints, lack of available support from the IT department, the risk of financial loss resulting from poor implementation and training, and the availability of the 800+ staff to attend the training.

Practice task 3

Create a training plan for the purposes of training an individual on a component of the knowledge or information system in your organisation. Use this table.

Name of trainee:		**Date:**	
Training rationale (Describe why you need to train the individual –what systems, are they new, etc.)			
Learner characteristics (Describe what type of learner the individual is –would they be better taught using books, demonstrations, aurally, etc.)			
Special learning considerations –language, literacy, other (Describe why you need to train the individual.)			
Training schedule (Create a daily schedule.)			
Resources required (List the resources required by the trainer/trainee.)			
Assessment of outcomes (if needed) (Describe how you may assess their competence at the end of, or during, the training.)			
Comments (Additional comments regarding organisation and facilitation of the training.)			

1D Promote and support the use of the system throughout the organisation

A common trait among Australian workers is resistance to change. But business is becoming more globalised due to the comparative ease of competing in foreign markets and the availability of cheaper labour and materials. From a marketing perspective, this is great news. It means managers have the ability to source from and sell to a wide variety of target markets. From a change-averse perspective, this is unsettling. It means change is more frequent and competitive advantages last for a shorter time than in previous generations.

The value of immediate, relevant data and knowledge is therefore higher now than in previous years. Keeping those within the organisation motivated to not only use the information provided, but add to the knowledge base, is an evolving and important area of management.

Introduce the system

When a new system is introduced into your workplace it may be greeted with scepticism, with comments such as, 'Why is this going to be better than what we already use?' or 'I know what I'm doing with the current system. It works fine.'

Any significant change should not be announced without explaining the reason for the change. This has two benefits: it reduces the resistance to the change when it is announced, and it can generate ideas from the workforce that may not have been considered previously.

As a manager introducing a new system you need to promote it to the workforce and have mechanisms in place (such as training) to support the users initially through the implementation phase and then throughout the life of the system.

Methods of introduction could include:

- noticeboard advisory (manual or electronic)
- change management plan (for example, a letter to staff from a senior manager)
- media release to promote the company and gain loyalty
- collaborative action planning to gain buy-in from department heads and other staff
- specific meetings.

Sell the system to the users

The conventional approach to introducing an information system is for managers to identify an 'off-the-shelf' system or engage system analysts to build a proprietary system. The system is then presented to the users through presentations, demonstrations and training. Unless the presentation is well designed and engages the users, this approach can enhance the negativity towards change, as some users may feel the new system is being forced upon them.

Involving the users in the process from the early stages gives them some ownership of the system and reduces resistance. Additionally, some organisations encourage ongoing feedback regarding the usability and effectiveness of the system, which helps acknowledge the important role staff play in the organisation's information management.

User involvement

User involvement should start at the initial stage of developing a new system, when the organisation identifies there is a need for implementation of a new system. The perception of the issues that drive the need to develop a system may differ in the various departments of the organisation and, may be different from that of senior managers. Surveying the users, including customers, clients and other stakeholders in the early stages of developing the system specifications can help to prevent problems at a later date and help to make the system user-friendly.

Survey topics may include:

- expectations of the system
- requirements from the system
- preferred types of interface with the system (web-based, call centre, in-store)
- support requirements (online tutorials, helpdesks, person-to-person assistance).

Contextualise the training

In providing user training for knowledge systems the training language must be appropriate for the user. A failure to contextualise the content for the user can create problems in comprehension and may result in a breakdown of the process. Here are ways in which a manager can achieve contextualised training.

Ways to contextualise training
• Know your target learner.
• Use simple language and don't over-complicate procedures and explanations.
• Introduce technical language and concepts in progressive stages.
• Have processes in place to cater for those learners who may find written English difficult (for example, people for whom English is a second language).

Impact on training resources

When seeking resources to undertake a management system learning activity, not only will you need to consider the legalities but you will also need to recognise and act on the implications the new legislations may have on that resourcing process. Availability of resources has a major impact on training resources. Whether or not an organisation has budget allocations for training and whether or not the training will be conducted internally or externally will also impact the training outcome.

Support the use of the system

A knowledge management system (KMS) is only of benefit if it is being used. To get the best possible return on investment it should ideally be utilised to its full potential. Difficult or inconvenient processes should be minimised or removed altogether, as users avoid tasks that they perceive as redundant or overly difficult. Language and terminology should be user-friendly and easy to follow. Monitoring the use and effectiveness of the system needs to be an ongoing task. The system manager needs to be aware of the issues as soon as possible to be able to investigate and recommend improvements for the development team. Users need to be able to provide feedback on their experiences.

Monitor the system

Feedback provides a number of benefits. Firstly, it improves inter-departmental communication. Secondly, it creates a loop where feedback feeds into a continuous improvement model for the purposes of refining the knowledge system. Lastly, it gives users a level of support whereby issues are actually a part of the knowledge system, and therefore can be rectified by any number of other users or administrators.

Ways to obtain feedback include:

- user team meetings
- developer team meetings
- simple electronic or manually based feedback processes.

Example: adapt training strategies

Joe is the maintenance officer at a logistics company. While most of his work is as a janitor, he sometimes needs to assist in other departments. He has completed year 10 and has had no formal education since leaving school. To ensure Joe understands the use of the company's knowledge system, his trainer has devised a system of training using colour-coded keyboard overlays and a number of practical tasks. The trainer has also made up a manual for Joe to use if he is unsure of any of the particular processes. The need for Joe to use the system is limited, but as a member of the staff, and an asset to the organisation, his manager understands that Joe's experience could add to the company's information system, and instructs the trainer to present the information with a focus on a competent outcome. This alters the trainer's approach and creates a better learning experience for Joe.

Practice task 4

Consider the ways you could promote the use of a knowledge management system. Compile a list of activities you would use to achieve this, ensuring you demonstrate awareness of the need for group and individual support and learning needs. Use this table. The first line has been provided as an example.

Activity	How the activity supports learning
Group email	Identifies specific groups such as managers, line workers, accounts clerks, etc. An email could provide specific knowledge relating to this area and examples would encourage workers in this area to use the system. Email is also cost-effective and quick.

1E Monitor and document the effectiveness of learning activities

A learning activity is only as good as the outcomes it delivers. Outcomes may be personal or contribute to overall organisational performance. There is an additional responsibility to the learner to ensure the training is effective, valid and current. The only way to gain this information is by implementing monitoring and assessment control process.

Here are some questions that may help to identify the effectiveness of the activities:

Are the users performing as they have been taught?

Does the training appear to be adequate?

Are the skills, knowledge and attitudes of the learners meeting the expected outcomes?

The effectiveness of learning activities

The effectiveness of learning activities can be monitored in a number of ways.

Methods of monitoring effectiveness include:

- using trainee feedback surveys
- using staff feedback surveys
- implementing assessment into the learner activities
- implementing staff reporting
- documenting staff performance after training
- undertaking workplace observation
- storing and analysing learner records.

Select the appropriate method of training

Consider the difference between an organisation installing a new system across all capital city offices and a minor upgrade to an existing system at a local office.

Knowledge required includes:

- extent of training required
- priority allocated to the training
- breadth and depth of organisational involvement in the training
- likelihood of future training (when, where, how often).

Record keeping

All the information gathered needs to be collated and documented to ensure the learning activities achieve their required outcomes and any areas that are not performing to the desired standard can be identified and developed further.

Record keeping is therefore an integral part of the continuous improvement of the system and serves as the foundation for analysing trends and outcomes.

Consistency

Having processes in place is of no use to an organisation if they are not implemented uniformly and correctly. It is difficult to measure training activities and training outcomes if there is little or no training consistency. This is especially true when there is more than one trainer or assessor working in the same learning environment with a number of learners at different skill levels.

Training policies, guidelines and procedural documents are useful tools to regulate training. Most large organisations employ the use of standard operating procedures (SOPs) across many operational facets of the business. An SOP is a procedural document that can be a contractually binding component of a job role, or in this case, a training process. Consistency requires discipline, and the reliance on contractual obligations is one effective method of achieving discipline.

Review

The aim of the review process is to critically analyse the outcomes achieved by the learning activities and to make recommendations for improvement. The review process should be recorded to allow managers to benchmark current practices and monitor future improvements to the training. The designer of the learning activities together with other stakeholders can make recommended changes and analyse whether making changes would improve the program, and at what cost. The designer and review panel need to determine if the time and cost required to adjust the program is feasible. The person or persons developing the learner activities need to gain final approval for the learning program from the appropriate person. Here is a list of the people within an organisation who may be involved in the reviewing process.

Reviewers may include:

- program manager
- head of department
- senior apprenticeship or traineeship supervisor
- training coordinator
- human resources manager
- senior manager.

Use templates for the review process

Consider creating templates or samples for the processes your business uses to review its learning activities. This assists with the analysis of future activities, as the data aligns with past data more easily.

Templates could include:

- plans
- agendas
- minutes that indicate review of program content
- resource materials
- delivery and assessment methods
- revisions
- other changes made to a learning activity indicating action taken to improve its quality.

Track the learning activity

Using documentation such as standard operating procedures (SOPs), training guides or manuals for the implementation of the learning activities helps achieve consistency. It also provides a useful collection of information for future training sessions. To ensure only the latest documentation is used, these documents should be version controlled. That means a specific version number should be allocated to any upgrade, change or reworked material.

The cost

Effectiveness and efficiency are used to measure a program's success. Cost control throughout the implementation of the training program should be treated with the same level of focus as the achievement of the outcomes themselves. There is no point having well-trained knowledge system users without the funds available to support continuous development and improvement.

Cost management relies on timely and accurate data. To reduce the risk of erroneous data affecting your decision-making, the information system you use should have direct input from the training system by, for example, the program developers, trainers or human resources managers.

Example: effective learning activities

Stephen is the head of a department in a multinational primary industry company. He is responsible for ensuring staff understand the reporting and monitoring methods used in the knowledge management system. Many of the workers are still not recording the information in the right format even after training. Stephen analyses the learning activities used by his trainers (onsite managers) to decide if the problem lies in the abilities of the workers or in the training process itself.

After reproducing a training session in a simulated environment, Stephen recognises that a gap in the manual used by staff is leading to the problem, despite the efforts of trainers to inform the staff about the gap. Stephen reports to senior managers stating there is a lack of willingness to report errors in the materials and the materials themselves are insufficient. A rework of the manual is ordered immediately and gap training is organised for specific staff.

Practice task 5

Describe the methods you would use to monitor and document the effectiveness of learning activities. In your answer, demonstrate consideration of the use of monitoring tools and templates for recording.

Summary

1. The learning needs of relevant personnel are recognised by using training needs analysis and competency mapping.
2. Identify and secure the resources needed for learner activities requiring specific learner information, a training plan, and a justifiable proposal to the relevant manager where appropriate.
3. The external use of an organisation's KMS can be controlled by the application of legislative or contractual measures.
4. To organise and facilitate learning activities for a KMS requires knowledge of the group dynamics or individual training needs as well as legislative requirements.
5. Promote the use of the system through formal targeted marketing to key groups or informal meetings.
6. Monitor and record the effectiveness of the learning activities involving the creation of procedures and policies to maintain consistency and baselines for improvement.

Learning checkpoint 1
Organise learning to use information or knowledge management system

This learning checkpoint allows you to review your skills and knowledge in organising learning to use an information or knowledge management system.

Part A

1. What types of practices, procedures and processes in your workplace allow for the identification, creation, distribution and adoption of insights and experiences by employees?

2. What are the objectives of the information or knowledge management system in your workplace (or an organisation you are familiar with)? How are these objectives achieved? What measures are used to record and monitor this information?

3. Implementing an information or knowledge management system can have several operational implications the manager must be aware of. Give two examples of implications that have been, or may be, experienced in your organisation.

4. The ongoing review and evaluation of the information or knowledge management system ensures it stays relevant. Find two other advantages of review and evaluation. Explain how these advantages affect your business over the long term.

5. Identifying stakeholder training requirements and needs from a knowledge system requires research. Give two examples of methods you have used, or would consider using in the future, to assess stakeholder learning needs.

6. Suppliers, contractors and those tendering to your organisation may require the ability to use your knowledge or information management system to enable them to fulfil their requirements. Give two examples of how you may achieve this while maintaining the integrity of your system.

7. As a manager responsible for implementing the required training, you need to understand the type of knowledge that is deficient. Briefly explain the two different types of knowledge and provide examples of how you may identify a deficiency in each type within your staff.

8. When planning the facilitation or delivery of training, the requirements of federal and state legislation must be complied with. List at least three areas of legislation you must be aware of within your organisational context.

Part B

Read the case study, then complete the three tasks that follow.

Case study

One of Australia's largest electronics retail firms is concerned with how its customers deal with the huge growth in electronic products and product innovation. It engages a research company to conduct a survey of clients who have recently purchased customer electronics. The major response notes that customers have a fundamental fear of buying the wrong thing. This fear is held by two different types of consumer:

- the 'electrophiles', who love electronics but don't know much about them
- the 'electrophobes', who have bought items for a specific purpose only to find they didn't meet their needs, and regretted buying them.

A SWOT analysis shows that one of the internal strengths of the company is the knowledge of the floor staff. This strength is derived from its heritage as a 'nerd's heaven', where for most of the staff this is a hobby as well as a job. However, this knowledge is perceived by many customers as enhancing their fear, as some feel intimidated about their own lack of knowledge when talking to the staff.

The company undertakes a review of its strategic objectives and new human resources strategies are developed: the training and development budget is increased and a program implemented to help staff see themselves as simplifiers. A 'Power Squad' is created to deliver and install products and train the customer in products. These human resources activities are part of an overall strategy that also includes changing the two million brochures the company produces a month to include more communication of the product and technology information instead of just pricing. Setting up customer education services in stores and redesigning store layouts to include customer education areas is an additional development.

1. What are two methods you would use to rectify these types of problems? Consider how these could be applied in your organisation.

2. How would you ensure the staff training is valid? Use templates and charts to demonstrate this.

3. What monitoring could you put in place to ensure these changes are effective? What tools would you use to analyse this information?

Topic 2
Manage the use of information or knowledge management system

It is important for an organisation to change, learn and be creative in order to compete in today's marketplace. While a knowledge management system (KMS) is crucial, it fails if it is neglected.

Consider when you install antivirus software on a computer. It is not enough to have it in place; you need to run checks and maintain and monitor the program. Monitoring the system, however, is not enough; procedures and instructions put in place by the manufacturer need to be followed for it to be effective. Having the best antivirus software available will not save your computer from viruses if you fail to utilise the program correctly.

The principle is the same for a KMS. Without constant scrutiny, users are unable to extract meaning from the KMS and anticipate or rectify any problems that may occur. If the same problems or situations arise, the lessons learned earlier can be made available to others. When dealing with information, remember that it is often the intellectual property of others and you need to observe copyright and intellectual property regulations to avoid legal issues.

In this topic you will learn how to:

2A Ensure knowledge management systems are compliant, effective and efficient

2B Address implementation issues and problems as they arise

2C Monitor integration and alignment with data and information systems

2D Collect information on achievement of performance measures

2E Manage contingencies by accessing technical specialist help

2A Ensure knowledge management systems are compliant, effective and efficient

Many policy and procedure manuals are prepared in response to incidents and without a planned approach. This often makes them difficult to access and use, and as a result they do not positively impact on staff decision-making.

A KMS policy may be required when:

- indicated by an evaluation or an audit
- an incident occurs for which there is no policy or procedure available
- new legislation or standards come into existence
- indicated by a gap analysis.

Initiate policy and procedure development

It is important to be clear about who can initiate policy or procedure development. Stakeholder involvement is a key issue for developing and reviewing policies and procedures. It is vital to include the end users of the policy or procedure in this step.

It is useful to have a set of criteria or a list of circumstances to help management recognise that a new policy or procedure is required.

Criteria that may indicate changes to policy
• The issue is critical to achieving the organisation's goals. • Significant risks are involved. • There are legislative or compliance issues. • Standardisation or consistency is at risk. • There is confusion about the best way to approach a task.

Implement and monitor

When implementing policies or procedures relating to the knowledge management system, there are certain things you need to consider.

When implementing policies or procedures:

- limit the number of policies to the key determinants of quality
- ensure consistency with the vision, mission and values
- consider legislative requirements
- focus on assisting good quality decision-making rather than controlling
- ensure required staff and managerial behaviour is included.

Comply with legislative requirements

Effective policies and procedures are essential to most business operations. Having effective policies and procedures in place reduces risk, improves morale and performance and ensures legal compliance.

Aside from Australian company obligations such as Australian Securities and Investments Commission (ASIC) regulations, the Corporations Act 2001 (Cth) and industry standards such as the Trade Practices Act 1974 (Cth), managers must be aware of other legislation and how it affects the operations of the business. Here are several typical legislative areas that need to be complied with.

Typical legislative areas
• Privacy and confidentiality – dealing with employee and customer information within an information management system
• Defamation – ensuring personally sensitive information is secure and does not lead to improper use against the person
• Work health and safety – ensuring systems and policies are in place to provide a safe and healthy working environment
• Anti-discrimination – access and equity for all levels and abilities employed (or likely to be employed) within the organisation

Ensure efficiency

Well-planned information systems rely on intuitive functionality. This means the navigation through menus and files makes sense to a reasonable person. An effective way of delivering this is to provide a content manual or guidelines page on an electronic system. Content guidelines usually include flow diagrams or mapping documents, which indicate the flow of information within the system and the various methods of retrieving the data.

Ensure accuracy and relevance

An effective KMS should store and retrieve accurate, timely and relevant information. Here are several methods for ensuring accuracy and relevance within a KMS.

Data input

- Parity checking: for automated electronic inputs
- Peer review: for written information such as training materials, policies, standard operating procedures and manuals
- Authority levels: only particular levels of authority can 'sign off' on the information prior to posting into the system

Data retrieval

- Use search-engine technology designed for the specific industry
- Prioritise and standardise information folders
- Centralise data: international and interstate businesses often have local and central servers, with much of the information being duplicated; ease of access and security play a part in this decision

Identify mechanisms, permissions and formats for input

A KMS should align with organisational policies and processes. The system should allow for input from all levels of the organisation, be accessible by a diverse range of employees (including people with disabilities), and maintain styles and formats similar to existing methods where appropriate.

Restricted networks such as those found within the Defence Department, Telstra and many other large organisations require that inputs are formalised, authorised and only accepted by qualified individuals. Such a process enables the system to maintain integrity and confidentiality.

Smaller organisations can use policies to enforce compliance with organisational standards. These policies and standards must adhere to relevant legislation.

If the business uses forms for client and internal processes, the KMS formats should match the existing formats where practicable in order to reduce errors and maintain (or improve) throughput of information. Government websites include copies of customer forms for easier input, as do many larger corporate sites. Smaller organisations also use this method to reduce handling times and costs. Care should be taken to avoid overly impersonalising the process in favour of efficiency.

Monitor the data

Selecting, maintaining and disposing of knowledge in the system must be done on a regular basis. Out-of-date, inaccurate and irrelevant content should be removed. To do this, organisations can approach the task systematically by running end-of-period system checks that automatically remove data within a given set of parameters. These parameters may include date, subject, communication string and folder or data packet size.

Share knowledge in the system

One of the key aims of any KMS is to provide information to the right person and the right time. The use of technology-based systems and the ever-improving security controls applied to wireless data allows for the potential access of data anywhere in the world at the speed of the local network.

Examples of information systems adapted to this technology include mobile device banking that allows a bank's customers to access and control account information via a customised user interface specifically designed for easy use on a small portable device. Restricted and secret networks are not accessible via this method at this stage, as the risk of computer crime is too high. For example, bank staff cannot access the internal banking system in the same way customers can access their accounts.

Sharing of information can be organised through policy and procedure guidelines. These guidelines may segregate data based on authority levels using passwords or other security measures. Alternatively, access to sensitive corporate data may be restricted via separate internal servers or extranet facilities.

Example: reveal weaknesses in a KMS

Tina works in the human resources department of a national sales company. She is contacted by another organisation's legal department requesting the employment records of one of her company's former employees. After consulting the policies and procedures handbook Tina discovers that due to the privacy laws regarding an individual's personal information she is unable to comply with the request. Upon informing the other organisation that she is unable to comply, Tina is told that they have a subpoena and that she is required to give them the file by law. Tina hands over the file after confirming the authenticity of the subpoena. As part of her recording and documenting process, Tina records the incident in the daily log. After reviewing the daily log, Tina's supervisor writes up a gap analysis for the incident, which highlights training on privacy laws and guidelines.

Practice task 6

Consider an incident that has occurred, or may occur, in an organisation where information from the KMS could not be retrieved for some reason. This may be a customer inquiry, legal request, managerial request or personal reason. Using this incident report template, record the incident, actions and recommendations you would make.

Date	Incident	Consequence	Reported by
Action taken			**Date modified**
Modified by		**Job title**	**Signed**

2B Address implementation issues and problems as they arise

When implementing and developing policies and procedures for monitoring the organisation's information or knowledge management system, there are several main questions that you as a manager need to ask:

- Where is monitoring required?
- What is most important to your organisation?
- What is happening and what should be happening?
- Is action necessary?
- What actions should you take?

Where is monitoring required?

It is important to have a firm understanding of the following areas before you set up your policies and protocols for information or knowledge management systems. Look at which areas are most important to your organisation as a starting point. You must also ensure your procedures take into consideration the legislation that may impact on your organisation.

Questions to consider when monitoring include:

- What information needs to be monitored?
- What policies do you need to implement?
- Where do you need to put procedures in place?
- What failure would cause the most damage to the organisation if your procedures broke down?
- What are your organisation's objectives?

What is most important to your organisation?

The areas that are most important to your organisation are the ones that need the most monitoring. As a manager you need to focus on them on an organisation-wide basis. Most departments set up procedures relevant to their own skill sets and it would be a waste of resources to duplicate the monitoring inter-departmentally. It is, however, advisable to ensure the procedures put in place cover all the information management areas relevant to that department. This could be achieved by working jointly with each department during the initial implementation of the information system.

What is happening and what should be happening?

When you have developed the policies and procedures, monitoring becomes a matter of comparing what should be occurring with the reality of what is occurring. If there is a wide variation between the two, it is usually an indicator that there is a breakdown within the system.

Is action necessary?

If the plan is failing to meet its objectives, you need to establish the cause or causes of the information breakdown and decide if the problem warrants further action.

Reasons that failure may occur include:

- faults in the plan or procedure
- lack of training for staff in this area
- outdated information.

What actions should you take?

Once the cause of the information breakdown has been established, it is necessary to identify ways in which it may be rectified. It may be that there is a problem with gathering information, and rectifying the problem may be as simple as evaluating and amending procedures. Is the problem through lack of training for staff or staff retention? Reviewing the induction and training process may assist in identifying the deficiencies.

Monitoring tools

Monitoring tools are used to identify implementation issues. Business technology such as computer databases, project management software and personal schedulers allow people to use designated monitoring tools that are effective for their situations. Other more complex and detailed monitoring systems can be generated by the organisation's information management system.

Common aspects of monitoring
• Financial controls • Schedule controls • Production controls • Informal monitoring

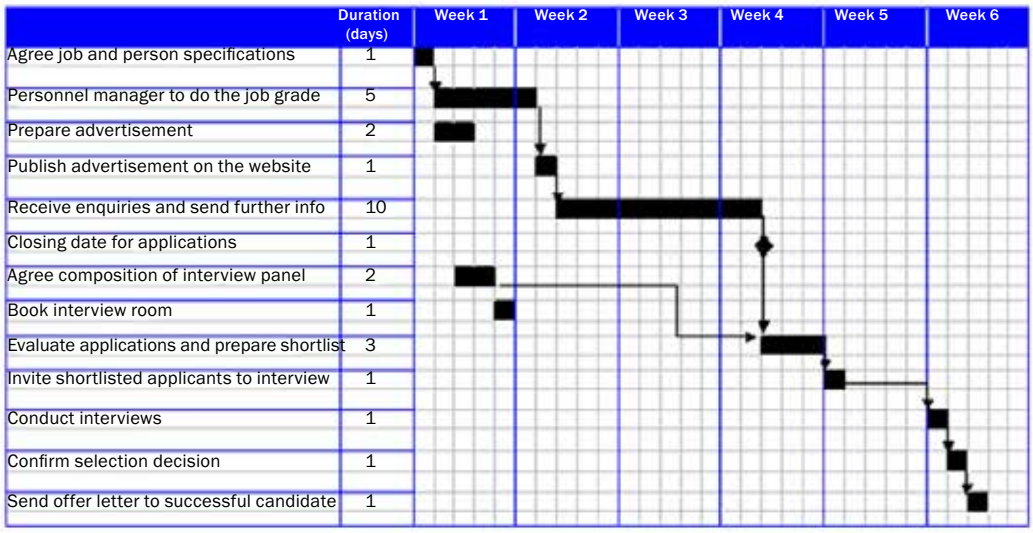
Financial controls

There are a large number of monitoring tools within the financial reporting part of the organisation that can provide valuable information. The information can tell us how the business is performing, the financial health of the organisation, what the organisation owes and owns, areas of waste and the costs of doing business. Financial monitoring tools the organisation uses include balance sheets, profit and loss accounts, budgets, projection sheets, petty cash journals, ledgers, financial statements and bank statements.

The organisation's financial information is generally monitored by its own specialised department; to avoid micro-management the manager generally uses the data provided by this department.

Schedule controls

A Gantt chart is a type of bar graph that is used to represent task progress and scheduling in an easy-to-view format. Here is an example.



Production controls

There are many tools available for monitoring production information. Information from these sources can inform the manager about the organisation's assets, customer bases, marketing demographic insights, waste and where money is spent.

Production controls can include:

- inventory control
- Gantt charts
- PERT charts
- materials resources planning
- dispatch functions
- just-in-time schedules
- quality controls.

Informal monitoring

Informal monitoring is a way of gathering information by talking to people and listening to their comments. While this is undocumented data, it is an important means of information monitoring.

Your diary and 'to do' list are can be efficient monitoring tools. It is also important that you monitor your own performance: one way of doing this is through feedback and asking others for their opinions.

Characteristics of an effective monitoring system

To make certain your monitoring system is successful, when deciding what to monitor, refer to your organisation's objectives and targets that are most affected by the monitoring process.

An effective monitoring system includes:

- accurate information that provides the information people need
- timely information that is available quickly and regularly to allow corrective or other action to be implemented
- easily understood information that is clear to those it affects and those who act on it
- useful information that meets the needs of the organisation and the people using it.

Address the issues

Identifying implementation issues through effective monitoring gives the manager information to work from. If the issues are within the production information system, for example, there will be data available to make corrections or report on the failures.

In most organisations, implementation issues are tackled at the front line unless the issue is more generically based. Line managers are given the authority to correct local issues and improve the performance of the system.

If the problem is more systematic and changes affect other areas of the business, it is usually necessary to report the issues with reference to the monitored data and provide it to the relevant personnel.

Example: identify a problem with a KMS

When Peter arrives at work he checks his diary to see what his day holds. It shows he is due to visit the various department heads on an informal basis to see if there have been problems with the implementation of the new customer relationship management system.

In the meeting with the logistics department head, Sally, she mentions that she is not receiving delivery information from the sales department in a timely manner.

Upon investigation, Peter notices performance figures are down slightly, and the slow provision of information to the logistics department could be the issue.

The problem is systematic. Customer information is not loading automatically into the delivery field of the form and instead needs to be manually input twice. Busy sales staff members avoid double entries and therefore ignore the problem.

Customers have not yet started to complain – so the only way the issue could have been picked up was through the informal review process (or an entire system audit).

Peter recommends immediate changes to the system, highlighting the issue with sales and deliveries as a reason for the change.

Practice task 7

Consider the problems may occur if changes to a knowledge management system have not been implemented correctly, if at all, then answer the following questions.

1. What problems could be experienced?

2. How could issues be identified?

3. How could you improve the implementation process?

2C Monitor integration and alignment with data and information systems

With information systems, it can be difficult to establish who owns and controls what information. The information used in organisations may be distributed to other organisations that disseminate it further. According to Wilhelm Hasselbring (2000), there are three information levels that can help distinguish ownership and content.

Here are three examples of information levels that may be used to integrate data and information systems

Three information levels
1. The business level describes the organisational structure and the progress or rate of progress of work done by a business or department (or for business rules and processes). It is a theoretical level expressed in terms meaningful to actual users of application systems.
2. The application level describes actual implementation of the business ideas in terms of project applications. The fundamental objective is to provide the 'glue' between the application scope described in the business architecture and the technical solutions described in the technology.
3. The technology level defines the information and communication infrastructure. At this level, information technology is challenged to achieve the business requirements.

Information systems integration

While you need to understand information levels, the structural plans of an individual organisation cannot be dealt with in isolation: processes are highly interconnected and should be handled as such. Communication between computer systems often mimics conversation between people, and as with conversation between people it is very easy to misinterpret what is being said. It is important to consider this when integrating those systems. A horizontal integration of the layers may be necessary to maintain the business processes efficiently.

In integrating autonomy (independence): your information systems need to address three issues that need to be addressed within a management system.

Autonomy

Multifaceted 'systems of systems' are defined by a controlled and sometimes limited integration of individual autonomous systems. Often, there are conflicts between the necessities of integration and independence such as redundancies and the resulting inefficiencies.

Heterogeneity

Heterogeneity occurs when different database management and operating systems are used within a single knowledge system. Also, the individual design among components adds to the diversity within that system.

Distribution

Much of the distribution is due to the existence of individual systems before overall systems are built. This is referred to as the integration of legacy systems. Legacy systems are those that remain after new systems are integrated.

Deal with integration issues

Systems integration is a specialised task requiring a high level of knowledge on information technology and organisational objectives. Technically proficient managers may embark on the task with little input from IT specialists. Most integration projects involve specialists who consult with managers to ensure organisational objectives are met.

Here are several typical solutions for dealing with integration issues.

Proxy services

Proxy services are an established technique for 'hiding' various incompatibilities. A proxy service is a software layer that is designed to access heterogeneous components of a complex knowledge system.

Remote procedure calls (RPCs)

An RPC is initiated by the user sending a request message to a known remote server in order to execute a specified procedure using supplied parameters. A response is returned to the user when the application continues along with its process.

Marshalling and unmarshalling

The marshalling and unmarshalling process is responsible for converting data values from their original format to an intermediate network format, and vice versa. In fully automated systems, this can be a simple parity check.

Example: incompatibility of systems

In a local accounting firm, business and personal accountants use a myriad of financial software packages to integrate with their clients' needs. These range from common packages such as MYOB and QuickBooks, through to some proprietary systems. When the client uses a system that does not integrate with any of these packages, financial reports, ledgers and other information must be provided separately.

In cases where integration with multiple systems is simply not economically viable, the solutions to the problem depend on the value of clients. In this case, the firm used a Pareto chart to identify the software used by the majority of its clients.

Practice task 8

Should your organisation's system be incompatible with client or supplier information systems, identify three ways in which integration could be made possible.

2D Collect information on achievement of performance measures

Performance has traditionally been measured with reference to the bottom-line profitability of the organisation. However, the way organisations value success today is no longer measured purely by financial considerations. Customer service, public perception, and staff morale have become more important in this information age.

Managers need to know what information to collect on performance measures from the KMS, and how they will collect it.

A performance structure should be created during the planning stages to ensure collection of information is done effectively and efficiently.

A data collection or reporting method can be achieved using these 10 steps.

1. Set up a system for collecting and reporting information.
2. Write clear descriptions of the type of information to be used.
3. Agree on the method for establishing current performance (if not already determined in the business plan).
4. List resources necessary to support the plan.
5. Agree on information formats and classifications for aggregation and consolidation.
6. Identify possible sources of benchmark data.
7. Set up a reporting schedule.
8. Establish positions and responsibilities.

9	Stipulate reporting needs.
10	Collaborate with process stakeholders to ensure understanding and dissemination of the process.

Performance measures

When determining what information to collect, the manager must develop a set of measurements that can be processed by a knowledge management system. These performance measures include the following:

- Key performance indicators. These are direct measures of individual tasks performed by people within the organisation, which may be captured by the KMS. They may include quantitative metrics such as sales quotas, production quotas and attendance records; and qualitative measures such as quality of work, leadership qualities and teamwork measurements.
- Other systems and measures to enable assessment of how, when, where and why outcomes are being achieved. These may include compliance with policies and processes, training attendance and completion standards, and customer service feedback.

Performance measurement framework

To implement a performance measurement framework, a plan (with time scales and selected specific tasks) is needed. Once the plan has been put into practice and information collected, new baselines can be set, evaluations made and new values set within the system to allow managers to make qualified decisions.

It is important that staff and other stakeholders are involved in the process. The indicators, targets and improvement activities must be spread throughout the organisation and incorporate teamwork in the development of new key performance indicators, and information collection and improvement activities.

The critical fundamentals of a good performance measurement activity are very similar to those required for a total quality improvement activity, and include effective leadership, commitment to excellence and thorough planning. You also need a sound implementation strategy, appropriate employee involvement, accurate and relevant measurement and evaluation, and quality control. Here are some methods that can be applied when translating information into an organisational knowledge management system.

Methods include:

- using existing system templates
- following existing processes (standard operating procedures)
- integrating legacy systems (that is, using software to take information from existing systems).

What information do we need to know?

In today's business climate organisations are expected to be socially aware, with ethical and moral actions and judgments more important than ever. Collecting data that applies to non-financial or profit-critical business measures should form part of an effective KMS.

Questions about an organisation's performance include:

- Can we continue to improve?
- Can we create value?
- What areas must we excel in?
- What way do customers see us?
- Have we achieved the organisation's mission?
- What areas have we improved in?

Mechanisms for data collection

If performance measurement criteria are clear and set in place, collection of data can occur more effectively.

Here are some mechanisms used for the collection of KMS data:

- Personal input – includes reports, essays, white papers, reviews and other narrative responses to key performance indicators
- Fully automated – electronic data collection between systems, usually manufacturing or industrial systems that communicate performance data in pre-set formats
- Semi-automated – management must collect and analyse data against organisational and industry benchmarks. The collection is then input directly by the manager or through a procedure developed within the organisation. The data is usually submitted electronically and consolidated to create a picture of the organisation's performance.

Example: data collection

A major power provider in South Australia has a green policy and prides itself on being a low-emission organisation. Financial performance, while a major consideration, is not the most important issue facing the organisation. It has set up a data collection and reporting method that provides information to monitor emissions and other environmental impact criteria. This includes carbon offsetting and emissions legislation and continues right down to the personal habits of individual employees. The performance measurement framework allows managers to see any increase or decrease in emissions habits at a glance.

Practice task 9

Select a single system within your organisation such as a customer relationship management system, or the whole knowledge management system.

List two performance measures used and describe how they are collected (for example, automatically via an integrated robotic/computer KMS).

2E Manage contingencies by accessing technical specialist help

While we all hope the flow of information is smooth and efficient, things can and will go wrong from time to time. Contingency planning for likely events is good business practice. There are several ways of coping with problems that occur.

Helpdesk

A helpdesk is a clearing house for problems and, while they may not deal with your problem directly, one of their functions is to connect the problem with a possible solution.

The helpdesk is also used for tracking and monitoring common day-to-day issues that may arise within the organisation's information technology environment. The helpdesk typically manages its requests via helpdesk software, such as an incident tracking system, which allows them to track user requests. An example is a 'local bug tracker' (LBT). The helpdesk software can be an extremely beneficial tool when used to find, analyse, and eliminate common problems in an organisation's computing environment. There are many software applications available to support the helpdesk operation.

It is common to have a broad-based helpdesk set up that services the whole organisation.

Helpdesk outsourcing

Some organisations are turning to rapidly developing economies (RDEs) to manage their helpdesks as the costs to the organisation are in some cases reduced by as much as 60 per cent. The use of overseas helpdesks is made possible by the advances in computer technology within recent years. In places such as India and Malaysia, where there is a large skills base of university graduates and limited positions available, there are organisations devoted to servicing other countries' information and knowledge management needs.

Product training and backup service

When an organisation purchases tools for the maintenance of its information or knowledge management systems it is prudent to ensure the package includes adequate training and ongoing support of the tools. It has become common practice for developers to include staff training on an ongoing basis to ensure the tools are used correctly and for optimum performance.

Technical support

Many software organisations have a technical support network as part of the software that allows a technical expert to plug straight into your information network to assess and solve any issues with the software system from a local or remote terminal.

Technical support is not limited to computers. With the increased functionality of telephone systems, electronic whiteboards and data projectors, organisations need technical support to keep information or knowledge management systems operational. Technical support can be in-house or outsourced.

Data recovery

Data recovery is the method of collecting information from electronic data storage devices that would be otherwise unreachable via normal means. Data can be recovered from devices such as hard disk drives (PC and laptop), memory cards, USB storage devices, CDs and DVDs. It can also be recovered from web-based backup such as the cloud.

Complaints department

Feedback about complaints can give an organisation a warning that things have started to go wrong. Being able to anticipate a problem before it arises can be of enormous benefit to an organisation's knowledge management system.

Back up work

It may be the responsibility of the staff of the various departments within the organisation to ensure all information is backed up on personal knowledge management devices to ensure information is protected if the system fails.

Some organisations ensure the backup copies are kept in a separate location. This practice is becoming commonplace and is included in many organisational procedure documents.

While backing up data can be time consuming, it is one of the best contingency plans that an organisation can utilise. There are a number of hardware and software solutions that address the issue of critical knowledge management system failure. This could be as high-tech as off-site data banking or as simple as the use of a memory stick.

Example: contingency plans

Joan is the new product manager with a chemicals organisation. She has been inputting information into the information management system using her desktop computer. This information is vitally important, as it is the research notes on a new product developed at a cost of millions of dollars.

Joan finishes the task and, due to the sensitive nature of the information, puts the written notes through the shredder. Secure in the knowledge that the information has been safely stored on her computer, Joan heads home. Betty the cleaner comes in to clean Joan's office and plugs her vacuum cleaner into the same power point as Joan's computer. The vacuum cleaner blows up, causing a power surge corrupting Joan's computer hard drive. Joan returns to work the next morning to discover that her work is no longer accessible.

Via the use of the helpdesk, the IT department sends down a data recovery specialist who manages to restore her lost data.

Practice task 10

Identify one time when you or someone in your organisation needed the support of a system expert to assist with a failure or technical difficulty.

Explain the processes you could follow if you need support and suggest any improvements that may be applied to each step.

Summary

1. In implementing an information knowledge management system it is important to make provision for continued monitoring of legislation and workplace policies.
2. Compliance, effectiveness and efficiency can be monitored formally or informally using direct and indirect methods of information gathering.
3. Legislative and policy compliance requires knowledge of the relevant policies and can be achieved through effective training systems.
4. Implementation issues can be isolated or systematic. Relevant and specific control measures can identify issues in a timely manner.
5. Integrating a variety of information systems internally or externally can be achieved at the business, application or technology level.
6. Proxy services, remote procedures and marshalling/unmarshalling methods may be used to integrate knowledge management systems.
7. Contingencies can best be managed through effective planning. Procedures for storage, retrieval, input and access to systems reduce the risk of knowledge system failure.

Learning checkpoint 2
Manage the use of information or knowledge management system

This learning checkpoint allows you to review your skills and knowledge in managing the use of information or knowledge management system.

Part A

1. List and explain two ways in which your organisation ensures staff training on information systems is effective. What improvements could you recommend to improve compliance with organisational procedures?

2. Most organisations have multiple sets of data on different systems such as procurement, sales, logistics and finance. Describe how your organisation could ensure these systems are integrated and aligned so information sharing could occur. (Note: if your organisation already does this, investigate and report on how it was achieved.)

3. One of the most important things to consider when maintaining your knowledge management system is that legal requirements are met. Identify, list and briefly explain the main legislative requirements relevant to your organisation's KMS.

4. Access your organisation's information system to collect information relating to achievement of performance measures. Write a brief report on the types of performance measures used and how achievement is measured. This may include sales performance statistics, accounts receivable, aged debtors or stock turnover reports.

5. Describe the various means your organisation uses to plan for contingencies or deal with technical problems. What improvements to current procedures could be made?

Part B

Read the case study, then complete the three tasks that follow.

Case study

Telephone Company U-Phone needs to implement staff training in the use of its new video phone service. The company identifies two major issues:

- when to hold the training at a time all the staff can attend, as many people work alternate shifts
- how the training can be contextualised to meet the individual levels of staff expertise and technical knowledge.

The way these issues are overcome is to hold a series of small training sessions for all department managers (day and night shift) who, in turn, hold training sessions for their staff. This allows the department heads to aim the training at their own staff learning needs and allows a staged roll-out of the training that does not disrupt the work rosters.

1. When installing a new system, what implementation issues could you be faced with in your organisation?

2. Describe ways in which you would address these issues and other contingencies as they arise.

3. If you were in charge of the U-Phone training program, what other approaches could you use to effectively and efficiently roll out the training?

Topic 3
Review use of the information or knowledge management system

In a competitive business environment, information or knowledge management systems give businesses an opportunity to share and gain information quickly and efficiently. The challenge facing managers is how they may achieve a sustainable advantage over time.

Information entered and retrieved from the system must not only remain relevant and accurate, but also be continually improved upon with respect to its delivery and use.

In this topic you will learn how to:

3A Analyse effectiveness of the management system

3B Review the business and operational plan and determine intended outcomes

3C Make recommendations for improvement to the system, policy or work practices

3A Analyse effectiveness of the management system

Information, if properly analysed and appropriately implemented, can give an organisation a distinct competitive advantage.

Here are several points that should be considered when analysing the effectiveness of a management system.

1. How will system effectiveness be measured?
2. How will strengths and weaknesses be identified?
3. Does the system provide my organisation with the desired advantage?
4. Is the knowledge reaching the appropriate person at the appropriate time allowing for effective implementation?
5. Does the system have the ability to keep pace with changes in the market?
6. IT systems are generally considered to be a supplementary tool or a support mechanism, and not an all encapsulated solution to knowledge.
7. Different organisations have different knowledge requirements. You need to be careful you don't fall in to a one-size-fits-all mentality.

Effective use of system strengths and weakness

Most systems use a combination of measures to establish trends in performance. These trends can highlight strengths and limitations over time and provide vital data to decision-makers.

When assessing a system's effectiveness you need to identify:

- number of entries
- time of entries
- location and time of use
- performance gains/losses against historical data
- data redundancies and relevance
- data errors
- system or process speed.

Report on system findings

When reporting on measures used to establish trends in performance, you should limit your information to only that required by the relevant personnel to make changes or investigate further. For instance, identifying regular data errors in the sales forecasting system may best be reported as a percentage error rate or as a percentage of total forecast entries. The format is reliant on established organisational standards and processes.

Example: the effectiveness of an information system

Jane is the head of research and development at a tyre company. After analysing the waste figures contained on her information system, she finds that the rubber off-cuts on the tyres are discarded. This causes waste, and is uneconomical.

Jane conducts an information analysis, which helps her to determine that there is a gap in the tyre market for solid rubber wheelchair tyres. Using this information Jane suggests the tyre off-cuts be used to make wheelchair tyres, thus creating a new market and reducing waste. The report is forwarded to the research and development team for further investigation with a positive recommendation from the CEO.

Additionally, Jane recommends a new report be created within the current information system to analyse external market data, which is currently purchased externally and not input into the KMS. In doing so, the system would perform a valuable additional function of market analysis and highlight new opportunities for research and development.

Practice task 11

Consider the KMS models used in your organisation. Review and analyse one of the systems and identify:

- five weaknesses of the system
- five strengths of the system.

3B Review the business and operational plan and determine intended outcomes

Knowledge management can provide organisations with a competitive advantage if information is used effectively to create tangible and relevant knowledge. From an operational perspective, senior managers need to ascertain whether the use of the information and the knowledge applied is actually achieving the objectives set out during the planning phase. To do this, relevant organisational benchmarks must be set and then monitored, controlled and reviewed for effectiveness.

Review against intended outcomes

In the planning phase, at the strategic level or operational level, measurable objectives are usually defined with reasonable clarity; for example, the percentage of increase in sales for a particular product line during a marketing promotion; or the expected rate of return on a venture capital investment.

During the implementation of a KMS or information system, similar objectives relating to efficiency, performance and customer/user satisfaction are identified. These may be included in the strategic documents of the business or within a specific project plan. Measurement of the success or limitations of the system can be benchmarked against these criteria and a determination can be made as to the overall effectiveness of the system.

Review benchmarks

As with any audit or review, benchmarks must be clear. If, for instance, the objectives for the implementation of the system were a 10 per cent increase in sales, what performance indicators could be developed to substantiate such a target? In this case, the manager would have a difficult time correlating the use of an information system directly to an increase in sales. Instead, the objectives must relate to the use of the system.

Profitability should be avoided as an objective of a KMS unless the system is used as a profit centre, such as in call-centre management. In non-profit-generating systems (those designed purely to support the operation and growth of the business) assigning specific profit targets is problematic and often subjective.

Here are specific grouped measures that can assist when reviewing KMS benchmarks:

- Accessibility – Measures relating to the ease of access by authorised staff and security against unauthorised access; that is, the number of breaches
- Economy – Measures that indicate efficiency gains through the use of the system
- Environment – External and internal environmental benefits such as reduction in waste or paper usage
- Safety – Measures of health and safety improvements against policy benchmarks

Review processes

Reviews can be formal or informal. Informal reviews occur throughout the control phase when managers monitor the use of the system and report on strengths and limitations. The reports are aimed to improve the effectiveness of the system and to align the use with organisational policy and procedures. A formal review usually occurs at a pre-set time, usually at three months and 12 months, and involves organisational key stakeholders in the process. Here is a list of some of the people who may be involved in the review process.

Stakeholders involved in the review process include the:

- development team or representative
- IT officer
- maintenance personnel (usually IT qualified)
- line management representative
- senior management representative
- project manager.

Review time frames

There are two important review times for an information or knowledge management system.

Three-month review

This is aimed at establishing the focus of the system objectives to ensure the use of the system isn't going off-track. For example, web-based systems often have links to external sites. It may be highlighted at this early review stage that users are spending too much time on external sites effectively 'browsing the net' instead of gathering specific information.

Twelve-month review

This is a finalisation review. At this point, the system has been fully implemented, users have been trained, and monitoring and control phases have been running for some time. There is substantial feedback data to use during this review with the aim of analysing the effectiveness of the system against the predetermined benchmarks.

After-action review

The after-action review (AAR) is a tool for knowledge analysis that the United States Army developed during the Vietnam War, as a quick and accurate assessment process to re-create working knowledge. Modern organisations have seen the value of the model, and have adopted it for analysis of knowledge systems. The simplicity of the AAR model makes it easy to use and interpret. Here is a selection of questions relating to the AAR process.

What was supposed to happen?
This highlights your organisation's performance benchmarks to allow the analyst to gain a true comparison. Were the benchmarks an accurate reflection of organisational policy and direction?

What happened?
This is a review that focuses on what actually happened. Did the process or action reach the targets the organisation had set? Were the targets achievable and relevant? This allows for mapping of the shortfalls in desired performance.

Why did it happen that way?
If managed effectively, this step allows the review team to brainstorm, develop a concept map and draw knowledge from the data. Both positive and negative aspects of what happened are analysed.

What did we learn from this?
This step allows for retrospective analysis and data mining. Critical knowledge gaps, strengths and limitations can be quickly identified and assigned to the appropriate personnel for further development.

Implement after-action reviews (AARs)

AARs give a base-line indicator of performance elements so you can use the knowledge you have identified from this strategy to make recommendations. Here are four questions that could be posed when implementing an after-action review.

Other models

Standard business review models are often applied to the KMS review process. Make sure you are familiar with these models. Here are four commonly used KMS review models.

SWOT

A common method for identifying the strengths, weaknesses, opportunities and threats inherent in a system

PESTLE

A technique for understanding the various external influences on a business system, that is, political, economic, social, technological, legal and environmental

Statistical models

Mathematical models for comparing variables, identifying anomalies and trends that allow the analyst to form conceptual as well as detailed conclusions

Pareto analysis

Looking at the measurement data on a histogram (bar graph) from left to right, largest to smallest influence, and using a cumulative percentage line to superimpose over the graph; this analysis allows for ready identification of key data variables (the two or three variables that make up the majority of the occurrences)

Example: effective and focused review sessions

'Paralysis by analysis' is a phrase used in business that describes a situation where too much time and money is being used to analyse data resulting in delays in implementation of any recommendations.

A Victorian car dealer implemented a CRM system designed to reduce access time to customer records by sales and administration staff. After six months, the company held a review and invited all the users to have input. The meeting took an entire day and turned into an argument about small, seemingly insignificant, aspects of the system and the way it was implemented.

The result was lost sales and productivity for the day and little useful input that could be used to improve the system. Changes were instead applied autocratically and as a result, users felt even more disassociated from the process.

Practice task 12

Five big companies have achieved success with their knowledge management systems. Do an internet search for: 'Five big companies that got knowledge management right' or go to the website: www.cioinsight.com/c/a/Case-Studies/5-Big-Companies-That-Got-Knowledge-Management-Right

The site describes the process that each of the five companies followed in the introduction, and development of their systems.

Click on the '5 Case Studies' link, then select and read 'No. 3*:* Dow Jones makes headlines with content management'.

Conduct a review using the AAR model and report on your findings. Ensure you cover each step of the AAR process in your report. Use the following table.

Question	Response
What was supposed to happen?	
What happened?	
Why did it happen that way?	
What did we learn from this?	

3C Make recommendations for improvement to the system, policy or work practices

The review process aims at producing a series of improvements that can be recommended to key personnel for authorisation or implementation. Making recommendations can be as simple as a list sent via email or as complex as an in-depth, multi-page report. The difference depends on the context. For example, large-scale implementation across a medium to large organisation may require submission of a detailed report; a small retail outlet may decide that the changes can be emailed to the IT developer for consideration, feedback and implementation.

In the event of any change or improvement to an organisation's information management system, information about plans should be more widespread and given as early as possible to enable people to contribute to change before decisions are made (for example, by means of taskforces or problem-solving groups). Lateral communication should be improved. Cross-functional links should be developed, and staff mobility should be encouraged.

Some examples of when recommendations may be made:

- When there are improvements in-house internet (intranet)
- When there is a need for upgraded training and mentoring policies
- When there are changes in the terms of trade (e.g. currency exchange rates, tariffs)
- When there are political changes (e.g. new labour laws; changes in company law, taxation)
- When an organisation improves the effectiveness of data systems
- To encourage an environment of interpersonal knowledge sharing
- With the implementation of after-action reviews (AARs)
- To encourage staff involvement in the design of usable systems

Improve intranet

Providing staff with an effective in-house knowledge base using an intranet format allows for the right person to access needed knowledge in a timely fashion: 'the right information for the right person at the right time'.

Using an intranet is a very popular approach to knowledge management, and can be implemented in a form that allows for the creation and sharing of knowledge such as in-house blogs and Wiki sites, as well as a repository for existing knowledge such as policies and procedures. This is a system that is simple to use and allows for learning or mentoring culture to be nurtured within an organisation.

Develop training and mentoring policies

The development of policies for mentoring and training allows effective transfer of knowledge and helps to foster working relationships between staff. This can create an opportunity for new knowledge creation for refining existing systems, and can give an insight into markets, consumer trends and competition in a semi-formal or informal environment that is conducive to creativity.

Effective data systems

The improvement of data systems reduces the risk of critical knowledge system failure and the loss of critical knowledge. These risks can reduce cost-effectiveness, increase the workload for staff and reduce the effectiveness of information and data analysis.

Improvements to the data systems may involve upgrading to new systems altogether. For example, moving from an Excel spreadsheet system for recording customer data, to a purpose-designed CRM system like Maximiser.

Here are several examples of critical data management.

External	Internal
The use of off-site data storage systems	Implementation of policies encouraging the use of low-technology solutions, such as the daily backup of work on USB flash drives, CDs or DVDs, ensuring critical data is not lost

Interpersonal knowledge sharing

The encouragement of personal knowledge sharing is an important aspect of looking at improvement to systems. Here are some methods that can assist in encouraging people in a work group or team to share interpersonal knowledge.

Methods of encouraging sharing include:

- the development of work groups and other dynamic team exercises
- the use of formal and informal team meetings – these could be as informal as a team break and the discussion of essential elements over a cup of coffee.

Involve staff in the design of usable systems

Follow the 'keep it simple' principle. The most effective systems are quite often not the fanciest or the ones that contain the greatest number of features. When designing the usability and functionality of any system you need to strive for functionality above all else.

Most designers will ensure that the delivery of the maximum amount of information is presented in the simplest form, using intuitive methods. If a system is too complex to use, staff may not use it; they may prefer the system they are comfortable with, even if it provides them with less knowledge and takes more time to access.

Select a better system

A knowledge management system must be appropriate to the specific nature and size of the organisation. There is a wide variety of different knowledge management models available. Some systems are technology-centric, while others utilise more traditional people-centric systems.

There are two approaches to system selection and design: the supply-side approach and the demand-side approach. Selecting the right method for collecting, retrieving and using information depends on the organisation's size, culture, customer orientation and future needs. Here are two knowledge management system models that are specific to the nature of an organisation.

Supply-side knowledge management system model

The supply-side system supplies knowledge to the right person at the right time. It is predominantly a top-down knowledge management model, and is usually technology-centric. It is based on a system of capturing knowledge, then analysing, codifying and disseminating this knowledge.

Demand-side knowledge management system model

The demand-side system focuses more on an environment of organisational learning and collaboration. This system is much more people-centric. It places a great deal of value in knowledge creation and the knowledge of the individual. In this system knowledge moves from the bottom up.

Monitor for compliance

All systems have their advantages and disadvantages. Best practice knowledge management systems utilise a mixture of technology and people.

The essence lies in the respect given to people's ideas and giving people the space to act on these ideas. Information privacy, or data privacy (or data protection) is the relationship between collection and dissemination of data, technology, the public expectation of privacy, and the legal and political issues surrounding them.

Privacy concerns will always exist wherever personally identifiable information or other sensitive personal information is collected and stored – in digital form or otherwise. Improper or non-existent disclosure controls can be the main cause of privacy issues. Knowledge/information and data privacy issues can arise in response to information from a wide range of sources.

Laws relevant to the privacy and freedom of information include:

- communication privacy laws
- financial privacy laws
- health privacy laws
- information privacy laws
- online privacy laws.

Example: review a knowledge management system

After a review, a paper distributor discovers that the helpdesk is receiving too many calls relating to company procedures rather than system errors or failures. To counter the problem the company sets up an intranet system for the sharing of in-house information, including a database of FAQs (frequently asked questions) and a list of policies and procedures for each department. While this addresses an existing problem, the company review process uses business analysis models that allow for more than just reactionary control measures.

During a SWOT analysis, they also identify an opportunity to share more information through the use of a blog site, which has the follow-on effect of more staff interaction and a friendlier workplace.

Practice task 13

Five big companies have achieved success with their knowledge management systems. Do an internet search for: 'Five big companies that got knowledge management right' or go to the website: www.cioinsight.com/c/a/Case-Studies/5-Big-Companies-That-Got-Knowledge-Management-Right

The site describes the process that each of the five companies followed in the introduction, and development of their systems.

Click on the '5 Case Studies' link, then select and read 'No. 4: Shuffle Master puts its money on a portal'.

Identify two aspects of the system that are supply- or demand-side knowledge management and offer recommendations for improving the system to senior managers. Your recommendations should consider how information is stored, retrieved and shared while 'keeping it simple'. Use this table.

Supply-side knowledge management		**Demand-side knowledge management**	
Activity	**Recommendation**	**Activity**	**Recommendation**

Summary

1. The effective use of knowledge systems depends on the constant monitoring and review of an organisation's policy, work practices and system performance measures.
2. The development of mentoring and training policies allows for the effective transfer of knowledge and helps to foster working relationships between staff.
3. An after-action review (AAR) allows for a systematic yet simple approach to the review process.
4. Using business analysis tools such as SWOT, PESTLE and statistical analysis to review the effectiveness of the knowledge management system can produce beneficial outcomes.
5. Use the 'keep it simple' principle. The most effective systems are quite often not the fanciest or the ones that contain the greatest number of features.
6. A system must deliver the maximum amount of information in the simplest form, using the most intuitive method.
7. Recommendations to improve the system depend on the nature of the organisation and what it requires from its knowledge management system. Recommendations may range from detailed reports to basic information sent via email.

Learning checkpoint 3
Review use of the information or knowledge management system

This learning checkpoint allows you to review your skills and knowledge in reviewing the use of the information or knowledge management system.

Part A

1. If information is one of modern businesses' most important resources, what advantages can good quality information provide to your organisation?

2. What are some of the benefits of the information or knowledge management systems in your organisation or an organisation you are familiar with? What are some of the potential drawbacks that can be associated with it?

3. What are some critical points to consider while assessing the effectiveness of knowledge or information management systems? Using the areas of economy, accessibility, safety and environment, identify some measures you could apply to your organisation's KMS.

4. Identify what type of KMS your organisation uses, either demand- or supply-side. Using the AAR model, develop a list of strengths and weaknesses and report your recommendations for improvement.

5. Business planning and operational planning should include the control and monitoring of the information systems of an organisation. Research and identify some of the performance measures used in your organisation for the monitoring of information systems. Prepare a report for your KMS manager. In your answer, identify gaps between system performance and planned objectives. If the objectives are not clear, suggest improvements.

Part B

Read the case study, then complete the task that follows.

Case study

Westcon's information system was managed by the same records officer for almost 40 years. Because it had been working well for this period the company felt no need to update as more and more computer technology became available. The records officer retired and Westcon was unable to find a suitable replacement; this resulted in chaos. Westcon had suffered a critical knowledge system failure.

Some of the outcomes included reduced cost-effectiveness, increased workload for staff, and reduced effectiveness of information and data analysis. The firm was at a standstill. Westcon closed its doors for two weeks, upgraded to computer technology and employed a group of specialists in data retrieval. It was both costly and time-consuming.

Critical knowledge system failure can be avoided. Identify and describe some of the steps you would take to avoid such a catastrophic event.

Prepare a short report to the CEO of Westcon outlining the steps the manager should take to prevent this risk from reoccurring.