I have been involved in vocational education and training for over 25 years. I have known Judith Dwyer for over 18 years while we all came to grips with changes to vocational education and training in Australia.

Judith has been an educator in both the large public institution and the private sector training environment. Her management experience includes establishing and running a successful Registered Training Organisation in Newcastle. Emanating from her background as an educator, her passion has been to write quality education and training materials for use in the vocational sector.

With this book she has done an exceptional job of taking management concepts and making them readily understandable and applicable to the management student or practitioner in today’s working environment. The book tackles contemporary issues such as the multigenerational workforce, sustainability and climate change, along with the traditional concepts of management.

I know from experience how hard it is to find an appropriate text to support vocational training. This book is ideal for any student in the field of management and an excellent reference book for any current manager.

Graeme Dick
Training professional in the Australian mining industry
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About the authors

Judith Dwyer holds a Master of Management (Public) from the University of Technology Sydney, Bachelor of Economics from the University of Sydney, Diploma in Education from the University of Newcastle and membership of the Australian Institute of Management (AIMM). She has worked extensively in vocational education and senior management of organisations. Her senior management roles in both public and private organisations have provided invaluable experience and support for the writing of Management Strategies and Skills 2nd edition. In her early career Judith taught business students management, business and communication skills. She progressed to senior management level within NSW Technical and Further Education (TAFE) and then worked as a chief executive officer in a private sector organisation.

Judith views the second edition of Management Strategies and Skills as a tool that enables managers, supervisors and team leaders to assess critically their role within an organisation from three perspectives. The first perspective is an organisation’s vision, strategic objectives and internal business systems and processes. The second is innovation, learning, sustainable development and continuous improvement. The third and most important is the perspective of the customer.

Judith has become a leading vocational education and training consultant. She has authored textbooks and learning and assessment materials linked to the national Business Services and other training packages. Her involvement in industry, reflected in this book, provides the essential knowledge, stimulus and innovative ideas for today’s manager.

Nicole Hopwood holds a Graduate Diploma of Management and a Bachelor of Economics and is a member of CPA Australia. Her professional experience includes working in various industries, including professional services, banking and telecommunications. She has specialised in business reconstruction and insolvency in the professional services industry. She has communicated the results of detailed analysis to decision makers in both investment and retail banking in the United Kingdom and Australia. Nicole has set up and maintained monitoring tools for use in analysing whether customers are credit worthy in the telecommunications industry.

Nicole’s extensive professional experience in Australia and the United Kingdom has led her to the realisation that each member within an organisation has a responsibility for continuous improvement both personal and professional. Her philosophy, reflected in this book, is that continuous improvement and learning are integral to improvement in every aspect of an organisation’s activities. Linked to continuous improvement is ongoing organisational change and deep insights can be gained from systematic collection and analysis of data. She believes the best decisions are based on the correct analysis of quality data. Continuous improvement and effective management of change lead to customer satisfaction, new customers, premium pricing, profitability, brand reputation, employee engagement and high morale. The organised, systematic application of the knowledge, tools and resources of change management provides organisations with a key process to involve stakeholders and achieve change successfully.
Throughout this book the term ‘organisation’ refers to private, public or not-for-profit businesses. All organisations require managers, supervisors and team leaders with the ability to think through and define the vision, specific purpose and objectives of the organisation. They need to plan, coordinate, monitor and control work productively and manage and engage employees in sustainable, motivating processes and tasks to achieve organisational objectives and ongoing customer value.

The focus throughout the book is on management practice and continuous improvement to provide customer satisfaction. Managers, supervisors, team leaders and employees at all levels need to understand how the processes within an organisation work, to analyse data about the process and to think and draw conclusions about how to improve the process. Proposed improvements to systems and processes must be able to be tested, validated and incorporated into the organisation’s standard operating procedures. Communication with others in similar processes is required so learning happens across the organisation.

Managing change and people is about defining the organisation’s vision and then achieving that vision through the management of self and very importantly the efforts of teams, groups and other stakeholders. Change is viewed from the perspective of stakeholders, the customer and sustainable development.

Acknowledgments

We especially wish to thank the case study contributors to this book: Will Baker, Liam Burns, Dave Grosvenor, John Hunter, Amar Sood and Nav Sood. We would like to extend our sincere appreciation to Maria Saupin for the giving of her time to review and after the insightful comments that helped us to improve this new edition.

Thanks also to the many colleagues and individuals whose valuable suggestions and constructive comments have contributed to the success of this book. In we thank John Burns for his wisdom, advice and generosity of spirit throughout the writing process particular. John was an excellent sounding board and provided critical and stimulating comments. We are deeply appreciative.

We wish to extend our appreciation to the professionals at McGraw-Hill. They include publisher Norma Angeloni-Tomaras, development editor Alex Payne and production editors Marisa Rey Bulen and Lindsey Langston.
What’s new in this edition?

This edition has six parts and three new chapters: Chapter 7 Non-traditional teams, Chapter 12 Manage and implement operational, plans and Chapter 20 Sustainable development and policies. Chapter 19 Managing risk was previously available online and it now included in the book.

Part 1 Understanding management introduces the student to management principles and practices. Part 2 Managing interactions highlights the dynamics of personal and group interactions, presentations and public speaking, the management of personal work priorities, professional development and the management of workplace relationships. Part 3 Understanding teams focuses on principles underpinning team effectiveness, features of non-traditional teams and the development of teams and individuals in a workplace learning environment. Part 4 Leading and managing operations addresses leadership theories, recruitment, selection, induction and termination practices, how to assign duties and appraise performance, operational planning, managing projects, managing and monitoring customer service, problem solving and decision making. Part 5 Implementing good workplace practice presents practical strategies to manage human resources and workforce planning, manage diversity in the workplace, ensure and monitor a safe workplace and manage risk. Part 6 Managing for sustainability focuses on sustainable development, responding to change, quality and continuous improvement and strategic management. The online content looks at knowledge management and learning organisations and management in a globalised economy.

The variety of features and learning activities throughout each chapter enables students to put their learning into practice in their studies and workplace. The writing style is user-friendly and complemented with practical applications of management principles and concepts that provide value to both students and lecturers.
Collaborate through technology for a variety of problems and act as role models on a daily basis to ensure the performance and achievement of objectives. They set goals, guide, give directions, make decisions, and handle tasks of their department or team. Their skills are crucial in different types of organisations.

**How do you contribute in your area of operations? What role(s) do you undertake to add value? In what way do you contribute?**

**ASK YOURSELF:**

1. Management skills
2. Communication
3. Negotiation
4. Leadership
5. Decision-making
6. Technology
7. Self-awareness
8. Emotional intelligence
9. Conflict management
10. Communication

**KEY TERMS**

- adaptive resilience
- apps
- boundaryless organisations
- bureaucracy

**SUMMARY**

LO 1.1 Identify the levels of management inherent in private sector, public sector and not-for-profit organisations. Identify the levels of management inherent in private sector, public sector and not-for-profit organisations. In Australia, organisations are classified as private sector, public sector or not-for-profit organisations. They have an overall mission, a vision, values or priorities and strategic objectives designed to achieve accomplishments. They have long-term strategies or approaches to achieve organisational goals and objectives. These strategies are often aligned with the organisation's purpose.

**Tables and figures** provide a user-friendly visual reference throughout each chapter.

**Ask yourself** feature allows students to involve themselves in possible choices, assess possible consequences and consider how they might respond. This feature allows a pause for thought and reflection.

Figure 1.2 > Management skills

**Chapter openers** include a chapter outline to provide a framework for reading and study and chapter learning objectives to focus the reader on key concepts.

**Features of this book**

- Good practice features at the beginning of each chapter to highlight current business practices or points of view and help students see the relevance of the chapter.
- Chapter openers include a chapter outline to provide a framework for reading and study and chapter learning objectives to focus the reader on key concepts.
- Ask yourself feature allows students to involve themselves in possible choices, assess possible consequences and consider how they might respond. This feature allows a pause for thought and reflection.
- Tables and figures provide a user-friendly visual reference throughout each chapter.
- Key terms are bolded in the text the first time they are used, defined in the margin at that point, and listed at the end of each chapter. They also appear in the glossary at the end of the book.
- Summaries provide a brief overview of the learning objectives.
Management: Strategies and Skills offers a variety of features to promote active learning, stimulate critical thinking and develop management knowledge and skills. Each chapter of the book has the following features:

◆ **Apply your knowledge** exercises provide short practical activities that reinforce theoretical content. Some are designed to allow students to engage in group exercises. These are practical activities presented at strategic points in the chapter.

◆ **Exploring the web** encourages students to research on the web and learn more about relevant areas covered in the chapter.

◆ **Review questions** allow students to test their learning.

### REVIEW QUESTIONS

1. a) Outline the relationship between effective communication and effective management.  
   b) Discuss the characteristics of effective management communication.

2. a) Briefly explain the elements in the communication process.  
   b) Discuss barriers to communication.

3. a) Describe the active listening process.  
   b) How do verbal communication skills complement listening?

### WORKING TOGETHER

Work in small groups. Your task is to:

a) Brainstorm the responsibilities of managers in today’s organisations.  
   b) Prioritise the responsibilities by order of importance.  
   c) Create a checklist of essential and desirable qualities for an effective manager.  
   d) Compile a job description and a newspaper advertisement for the position.  
   e) The person appointed to the position has not held a management position before. Apart from inducting them into the organisation and their department, what other types of training would the new manager require?

◆ **Case studies** help students to link management concepts to management practice. A scenario followed by questions allows for practical application of the chapter content.

### CASE STUDY 1: THE MANAGER’S ROLE

(This case study continues the information provided in ‘Good practice: The manager’s role’ on page 4.)

Michael Baldwin is a business development manager with Total Tools Pty Ltd. In this capacity he investigates potential business opportunities and opportunities for franchise expansion.

When asked to describe the characteristics of a good manager, Baldwin says, ‘good managers are natural organisers and unafraid to back themselves and their decisions’.

When the management at Total Tools Pty Ltd is fully satisfied with Baldwin, why should they consider promoting him elsewhere?
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</tr>
<tr>
<td>8.5</td>
<td>Monitor and evaluate learning</td>
<td>219</td>
</tr>
</tbody>
</table>

## Learning objectives

| LO 8.1 | Describe the strategies that managers, supervisors and team leaders can use to determine team and individual development needs. |
| LO 8.2 | Distinguish types of workplace learning and development. |
| LO 8.3 | Develop a learning plan and explain its value for the learner. |
| LO 8.4 | Outline strategies that sustain a workplace learning environment. |
| LO 8.5 | Explain the value of monitoring and evaluating training and other learning and development activities. |
Managers, supervisors and team leaders operate in organisations ranging in size from large and highly formal organisations to small and informal organisations. Whatever the size or structure of the organisation, managers, supervisors and team leaders can facilitate team and individual development by:

- giving informal and formal feedback on performance of team members
- consulting with the team to review team performance in achieving goals and objectives
- identifying learning and development needs in line with organisational requirements
- developing learning plans in collaboration with teams and individuals
- encouraging individual team members to self-evaluate their performance to identify areas for improvement.

The developmental aspect of a manager, supervisor or team leader’s role requires them to avoid, at all costs, non-supportive actions such as criticism, blame and ridicule that demotivate individuals and teams, remove the opportunity to learn from mistakes and prevent the opportunity to try something new.

### 8.1 Determine development needs

Any organisation’s effectiveness will increasingly depend on its ability to identify, collect and share knowledge and information, store, retrieve and use knowledge and information, and innovate and adapt to changing circumstances. Organisations need to learn.
A learning organisation can respond quickly to the needs of clients, changing market conditions and technological advances. Within a learning organisation it is the role of the manager, supervisor or team leader to ensure that the work team has the necessary skills and knowledge to achieve organisational goals and respond effectively to opportunities and threats in the changing environment.

Learning is often associated in our minds with training in a seminar or classroom. This is a narrow view. A learning organisation shares skills, information and know-how by creating learning opportunities inside and outside the organisation. An organisation may support learning through:

- on-the-job workplace learning, as shown in Table 8.1
- off-site activities such as visits to other organisations or industries to observe areas of interest and best practice
- university, TAFE, registered training organisations, professional associations and other external programs.

### Table 8.1  Workplace learning opportunities

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Achieved by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentoring</td>
<td>Providing support for high-potential staff, developmental opportunities for minorities in an organisation and sharing corporate knowledge and business processes</td>
</tr>
<tr>
<td>Work shadowing</td>
<td>Observing how an experienced person does the job and being able to identify and discuss new and better ways of doing things on the job</td>
</tr>
<tr>
<td>Coaching</td>
<td>Working with or being matched to someone with more experience so knowledge or skills may be gained and applied</td>
</tr>
<tr>
<td>Training</td>
<td>Trying out a new way of doing things on the job and evaluating the result with a mentor or a coach</td>
</tr>
<tr>
<td>Experiential learning</td>
<td>Reflecting on experiences in the workplace and discussing these with a mentor or coach</td>
</tr>
<tr>
<td>Job rotation</td>
<td>Moving to a new position (short term) to learn new skills or to determine whether the job is suitable for career move</td>
</tr>
<tr>
<td>Project work (on the job)</td>
<td>Learning to become part of a team or project to gain new knowledge for the purpose of learning and development</td>
</tr>
<tr>
<td>Provide resources in an in-house learning environment</td>
<td>Providing resources such as manuals, DVDs, blogs and books, and by making time available for discussion on what has been learned and how the learning may be applied</td>
</tr>
</tbody>
</table>

Table 8.2 distinguishes **mandatory training**, **core training** and **developmental training**. Training sessions can vary from one- or two-hour induction sessions through to a university degree program for a trainee accountant employed in an accounting firm.

### Table 8.2  Requirement to provide training

<table>
<thead>
<tr>
<th>Mandatory training</th>
<th>Core training</th>
<th>Developmental training</th>
</tr>
</thead>
<tbody>
<tr>
<td>RG146 Training for financial advisors</td>
<td>Code of conduct for managers, supervisors and team leaders</td>
<td>Building client relationships</td>
</tr>
<tr>
<td>Workplace health and safety site induction in construction industry</td>
<td>Leadership development for all team leaders</td>
<td>Team building</td>
</tr>
<tr>
<td>Responsible service of alcohol (RSA)</td>
<td>Strategic management for senior managers</td>
<td>Manage and implement change</td>
</tr>
<tr>
<td>Manual handling</td>
<td>Performance appraisal process</td>
<td>Risk management</td>
</tr>
<tr>
<td>Fire and evacuation</td>
<td>Food safety training</td>
<td>Manage work priorities</td>
</tr>
<tr>
<td>Infection control</td>
<td>Induction training</td>
<td>Conflict management</td>
</tr>
</tbody>
</table>

Managers, supervisors and team leaders need the skills to operate in an environment of best practice, quality and benchmarking and be able to model action-based and participative learning. Managers, supervisors and team leaders who work effectively in a learning organisation promote learning and innovation and facilitate team development.
8.2 Types of learning and development

The purpose of on-the-job training of any type is improved performance. Performance in the workplace is affected by business processes and procedures, work environment (layout, machinery and equipment), individuals' capabilities, limitations of team members and their interactions, knowledge and skills base of individuals, the team and organisation and their application.

Explicit and tacit knowledge is transferred through workplace learning. Explicit knowledge is relatively easy to access because it is articulated in reports, notices, standard operating procedures and other workplace documents; therefore, it is stored and can easily be transferred to others. Tacit knowledge is difficult to share because it is only known by the individual who may not realise its value to anyone else. The tacit knowledge carried within the mind of an individual or within an organisation can be learnt through personal experiences, practice and facilitated activities such as coaching, mentoring, training and other learning activities.

Workplace training

The progressive shift from technical expertise in one skill only to multi-skilling has created the need for ongoing training, learning and professional development of employees. The result is that organisations require more than trade skills or professional expertise. Organisations are now investing in training, mentoring, coaching and other learning activities to provide leadership, conflict management, customer service, negotiation and problem solving.

Managers, supervisors and team leaders may need to provide training in induction sessions, workplace health and safety (WHS), using new technologies and web-based communication and other areas that cross the boundaries of job classifications and descriptions. Multi-skilled individuals are able to perform a number of tasks across a variety of skill areas at a number of different levels. The opportunity to work on different tasks and functions increases engagement, motivation and productivity because the variety of work makes the job more interesting.

In their training delivery role the manager, supervisor or team leader is the expert in the subject matter; however, they must also be facilitators of adult learners and understand how adults learn. Figure 8.1 identifies the principles underpinning adult learning identified by Knowles (2005). Adult learning principles apply to training and learning in the workplace or any other context. The well-known maxim 'I hear and I forget; I see and I remember; I do and I understand' applies to workplace learning.

Some of the types of training and learning delivered by managers, supervisors or team leaders are:

- one-to-one training
- small group training
- demonstration of work skills
- mentoring in the workplace
- on-the-job instruction or coaching
- self-directed learning packages
- facilitated workshops and conferences.

Table 8.3 provides useful guidelines to follow in the delivery of workplace training.
CHAPTER 8 Develop teams and individuals in a workplace learning environment

Competent trainers are confident trainers. They are willing to interact positively and use the participants as a resource to facilitate and aid the learning process. On those occasions when a participant is more knowledgeable, trainers are able to ask them to contribute and share that knowledge. They gather feedback from participants, both during and at the end of the training session to improve training performance.

Table 8.3 > Guidelines for the delivery of workplace training

<table>
<thead>
<tr>
<th>Steps for the training</th>
<th>What needs to be done</th>
</tr>
</thead>
</table>
| Knowing your audience and their capability | • Access existing training needs analysis (TNA) within the organisation  
• Survey team to determine training needs  
• Conduct informal chats prior to the session  
• Ask participants what they know about the topic immediately after presenting the aims of the training session |
| Planning for the training | • Identify clear objective(s) for the session or series of sessions  
• Prepare a flexible schedule of activities (learner centred) for the session  
• Prepare handouts, visual aids early, check the venue beforehand—chairs and tables arranged as required, proper equipment, no distractions |
| Delivering the training session(s) | • Present objective(s) at the outset in written format and expressed in terms of behavioural outcomes  
• Undertake an ‘ice breaking’ activity very early in the session, e.g. provide information (short) about yourself and ask people their names and one sentence about themselves  
• Use a variety of delivery methods to stimulate active involvement of the participant—discussion groups, exercises, role plays and brainstorming  
• Involve learners as active participants in their own learning  
• Respond positively and promptly to questions/queries  
• Provide feedback and reinforcement to enhance learning  
• Present information in chunked discrete, logical pieces  
• Provide ‘hands-on’ opportunity to practise the application of the information  
• Allow time for people to digest information  
• Provide a reasonable level of repetition to enhance learning  
• Monitor the progress of participants by observing and asking open-ended questions that let them show understanding |
| Concluding the training session | • Review and summarise information covered in the session  
• Provide encouraging feedback to individuals and the group to motivate for future learning  
• Link the learning to organisational and team objectives  
• Point the way ahead |
PART 3 Understanding teams

The transfer of learning into the workplace completes the cycle of learning. Arrangements for the transfer of learning into the workplace can be made through the use of mentors, partnering more experienced learners with the less experienced, conducting follow-up sessions, or setting action-based projects or tasks to apply the learning.

**Mentoring**

Mentoring programs develop the mentees’ organisational knowledge and career paths. A mentor is a person who takes an interest in another person’s career and provides positive support, help, advice and encouragement either formally or informally. People learn from their mentor in a developmental relationship.

Mentors are often selected from the organisation’s leaders or senior managers. They share corporate knowledge, organisational values and business processes, and help the mentee build relationships across the organisation. Examples of successful people who have benefited from having a mentor include business people (Freddie Laker mentored Richard Branson), politicians (Robert Menzies mentored Malcolm Fraser) and athletes (golfer Charlie Earp mentored Greg Norman).

Mentoring provides support for high-potential staff and developmental opportunities for minorities within the organisation. The advantages for individuals and the organisation are improved motivation, performance and career development. Refer to Chapter 9 for more information about mentoring.

### Ask yourself

Mentors provide their expertise to less-experienced individuals in order to help them advance their careers, enhance their education and build their networks. A mentor provides counsel, insight and guidance.

**ASK YOURSELF:** What would you like a mentor to do for you? Give specific examples. What options do you have to find a mentor at work?

**Coaching**

A coach is a person who helps another to learn, perform and achieve a specific work task or skill. A person learns with their coach. Coaching is often a formalised process that follows six phases, as shown in Table 8.4. Refer to Chapter 9 for more information about coaching.

As part of the coaching process managers can delegate specific learning tasks to complete as self-directed learning. Any delegation of tasks for ongoing learning should happen early rather than at the last minute and gain mutual agreement. The delegation should include clear, brief instructions about objectives, resources, priorities and review dates. The manager, supervisor or team leader accepts that others do things differently, avoids hovering, reviews together in private and on completion praises in public.

**Table 8.4 > Phases in the coaching process**

<table>
<thead>
<tr>
<th>Phases</th>
<th>What to do</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Determine the training need and the desired outcome</td>
</tr>
<tr>
<td></td>
<td>Identify and document the problem:</td>
</tr>
<tr>
<td></td>
<td>• Observe the team member on the job</td>
</tr>
<tr>
<td></td>
<td>• Look through the team member’s performance records</td>
</tr>
<tr>
<td></td>
<td>• Consider the outcomes of a formal performance appraisal program</td>
</tr>
<tr>
<td></td>
<td>• Decide what records should be kept, who is to keep them, who is to have access to them and how confidentiality will be maintained</td>
</tr>
<tr>
<td></td>
<td><strong>State the desired outcome clearly</strong></td>
</tr>
</tbody>
</table>
CHAPTER 8 Develop teams and individuals in a workplace learning environment

<table>
<thead>
<tr>
<th>Phases</th>
<th>What to do</th>
</tr>
</thead>
</table>
| 2      | Prepare a coaching action plan | Prepare a step-by-step process:  
• Include specific objective(s) preferably in behavioural terms  
• Identify the necessary resources  
• Identify rights and responsibilities of the respective parties  
• Identify time lines for the attainment of the objective(s) and duration of the coaching relationship  
• Identify nature and extent of the contact between the coach and the person being coached  
• Adjust plan in response to ongoing feedback (if required) |
| 3      | Explain the process | Describe clearly to the team member:  
• What the coaching process will involve  
• What it is designed to achieve and why  
• When coaching will take place  
• How long each session will last  
• What resources will be required |
| 4      | Demonstrate the desired behaviour or task | Do it fast:  
• Do the task or demonstrate the behaviour at the usual pace expected on the job  
Do it slow:  
• Break the task or the behaviour down into small sections  
• Carefully demonstrate each section  
• Clearly explain what you are doing and why |
| 5      | Practise | Do it with them:  
• The team member should practise the task or behaviour with you at their side or assisting  
Let them go:  
• Arrange to observe only  
• Encourage the team member to practise the task or behaviour as frequently as possible by themselves |
| 6      | Feedback | Monitor the team member’s performance  
Correct any variations from the expected standard  
Avoid destructive criticism, encourage and motivate  
Listen to problems the team member may want to talk about, or any suggestions they have  
Reinforce positively  
Acknowledgement of the team member’s progress and achievements |

**Action-based learning**

Action-based learning is shared learning in the workplace about specific work issues. An integral part of the process is team involvement in real work, discussion, reflection, review and sharing learning. As well as building task competency, team learning improves communication, teamwork, problem solving and decision making. Examples of action-based learning methods are shown in Table 8.5.

**Table 8.5 > Action-based learning**

<table>
<thead>
<tr>
<th>Type</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>After action reviews</td>
<td>To enable the team to reflect on what worked and what needs improvement</td>
</tr>
<tr>
<td>On-the-job projects</td>
<td>To enable all team members to participate, gain and share new knowledge</td>
</tr>
<tr>
<td>Problem solving</td>
<td>To help team members work together to develop processes to solve problems</td>
</tr>
<tr>
<td>Quality circles</td>
<td>To encourage team members to improve processes as well as individual performance continuously</td>
</tr>
</tbody>
</table>

**After action review**

The after action review is a powerful learning tool because it lets those involved learn about what is happening now in order to improve performance and increase their pool of knowledge. The after action review has sequential steps as outlined in Table 8.6. It is important to plan well for the review and gain the participation of all stakeholders.
PART 3 Understanding teams

8.3 Purpose of learning plans

A learning plan facilitates workplace learning, structures the learning and guides all stakeholders through the process. Learning plans provide a useful mechanism for the learner and the mentor, coach, trainer, team leader and other stakeholders to clarify how the planned learning will happen, support the learning, and monitor and evaluate its outcomes.
Learning plans are an integral part of individual or team performance plans. A learning plan can be prepared, for example, to fill a gap in performance identified in an after action review, a performance appraisal or by any other means. Learning plans may accompany each employee’s goals or objectives for the upcoming year. They structure and promote learning by identifying:

- what people need to do as they learn
- why they need to learn (the reason for learning)
- how to initiate the learning
- what time, resources and opportunities are available to allow them to learn
- how they will be facilitated, supported, mentored or coached as they learn
- how they will know when learning has been achieved
- how successful the learning was in meeting the goals of the learning plan.

**Structure the learning plan**

An effective learning plan helps to remove confusion caused by the increasing range and availability of knowledge and information and focuses the learner, mentor, coach and manager on the purpose of the learning or development activity. A learning plan should document clearly opportunities for the learner and mentor, coach or other team members to discuss, give and receive feedback on, and reflect on and apply the new learning.

Managers, supervisors and team leaders need to:

- develop an overall strategy or plan to meet the learning requirements of the work team and the organisation
- facilitate individual learning plans to satisfy both the team’s work goals and the professional development needs of individuals.

An individual or team learning plan communicates and structures the learning activities. The sequence in Figure 8.2 is a useful guide to follow in the development of a learning plan.

**Figure 8.2** > Follow a sequence to develop a learning plan
Negotiate learning plans

Negotiate learning plans to improve the commitment to and effectiveness of learning by:

- identifying and confirming the learning or professional development need with the individual, team or other relevant stakeholder in the learning
- setting and clarifying realistic objectives and targets
- negotiating an appropriate type and mix of learning strategies
- confirming convenience of time and place, and availability of learner, coaches, mentors or other relevant stakeholders
- establishing feedback processes and how progress will be monitored
- identifying standards against which performance is measured, and identifying how and when evaluation will happen
- documenting the learning plan and obtaining sign-off from the mentor, coach, subject-matter expert and the person undertaking the learning.

As the plan is created identify the needs of the learners, the team and the organisation.

Sample team learning plan

A sample learning and assessment plan for a team of newly appointed supervisors is shown in Table 8.7. A learning plan can be either a short-term or long-term plan.

Table 8.7 > Learning and assessment plan—new supervisors

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Learning activity weeks 1 and 2</th>
<th>Assessment activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisors to determine development needs of team against: • team objectives and results • organisational objectives By conducting: • skills audit • bi-annual performance appraisal</td>
<td>Presentation and discussion by senior manager Group activity—performance appraisals, workplace skills assessment and learning plans Conduct an individual skills assessment on their own competence in developing and leading teams (end of week 1)</td>
<td>Question and answer Case study (end of week 1) Supervisor to discuss their skills assessment with a more senior staff member and decide how to fill any skills gaps (end of week 2)</td>
</tr>
<tr>
<td>Supervisors to develop individuals and teams by supporting opportunities for: • on-the-job training • off-the-job training • workplace learning • coaching and mentoring</td>
<td>Presentation and discussion about on-the-job coaching, mentoring, work shadowing, action-based learning and self-directed learning Group analysis of case studies to compare the advantages and disadvantages of on-the-job and off-the-job training Group work to identify mentoring skills Work shadowing a manager experienced in coaching (end of week 4)</td>
<td>Participation as a group of six in an action-based work project in which they create together learning plans to match their skill needs in developing teams and individuals (weeks 3 and 4) Question and answer (week 3) Prepare a best practice checklist for coaches (week 4) Prepare a best practice checklist for mentors (week 5)</td>
</tr>
<tr>
<td>Supervisors to monitor and evaluate workplace learning: • through feedback from team members • against standards of performance identified in national, industry and organisational standard operating procedures • from observing and acknowledging improvements • from training records and reports</td>
<td>Each supervisor to be individually coached, on the job, in giving and receiving feedback from team members that encourages participation and commitment Group reflection on learning from participation in the coaching session—thinking, questioning, reflecting and planning for improvements in next coaching session Work-based application by coaching a team member in a work task (end of week 6)</td>
<td>Questioning and demonstration in a coaching session After action review, questions, answers and improvement plans Demonstration of coaching skills on the job (end of week 6)</td>
</tr>
</tbody>
</table>
CHAPTER 8 Develop teams and individuals in a workplace learning environment

Consultation within your organisation

The learning and assessment plan was prepared in consultation with the major stakeholders including training manager, supervisors, team leaders and experienced staff who are willing to act as coaches. Three meetings were held to discuss the appropriate learning and development mix. The stakeholders requested that the:

• off-the-job training be held in meeting room 2 as the facilities were appropriate to group learning
• on-the-job coaches provide support in the workplace
• learning, development and assessment take place within a six-week period
• action learning and demonstration of knowledge and skills in discussion, work-based project and application in coaching sessions

Learning and development mix

<table>
<thead>
<tr>
<th>Two days off the job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four on-the-job coaching sessions by two hours</td>
</tr>
<tr>
<td>Work-based project and application over six weeks</td>
</tr>
</tbody>
</table>

Signatures

<table>
<thead>
<tr>
<th>Supervisor</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant</td>
<td>Date</td>
</tr>
<tr>
<td>Trainer/facilitator/coach</td>
<td>Date</td>
</tr>
<tr>
<td>Assessor</td>
<td>Date</td>
</tr>
</tbody>
</table>

8.4 Support workplace learning

Workplace learning must be appropriate to the workplace roles, tasks and targets, and appropriate to the needs of the team and individual team members. As participation in these learning opportunities takes time and resources, benefits should flow to the organisation as well as the individual.

Key principles that facilitate implementation of learning and development across an organisation include:

■ an organisation-wide training and development plan based on the results of skills analysis
■ a series of coherent learning pathways to support organisation-wide initiatives
■ training and development aligned to operational priorities and the development needs of teams and individuals
■ adequate budget and resources
■ ongoing monitoring and evaluation of outcomes
■ equality of opportunity to undertake training, learning and development.

Managers, supervisors and team leaders facilitate and promote a positive learning culture in the workplace by:

■ providing direction, knowledge and constructive feedback such as talks, reports and informal contact
■ supporting their team, peers and other stakeholders in ongoing learning and personal mastery of processes, tasks and change
■ giving and receiving constructive, objective feedback about performance and taking action to achieve improvement
■ creating a shared plan of action to improve unsatisfactory performance and mistakes
■ orienting the team’s vision towards the long term as well as immediate short-term success.

Two critical aspects of workplace learning are self-evaluation and feedback. Self-evaluation should enable the individual to take responsibility for their own learning and professional development. It will also encourage the individual to continually improve performance and competency.

Any self-evaluation should be measured against appropriate and known standards and benchmarks. Some examples are:

■ national competency standards (refer to http://training.gov.au)
■ standard operating procedures
■ safe work method statements
■ legislative requirements
■ benchmarked process activities.
People closest to the work are those who should know most about the processes. When a gap exists, learning must take place to improve performance in the job tasks. While managers, supervisors and team leaders may be closest to where the training and learning is needed they must consult and gain commitment from relevant stakeholders for the workplace learning and development. Table 8.8 identifies strategies used as the learning opportunities are planned.

Table 8.8 > Organise workplace learning

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain approval for resources and time lines</td>
<td>• Identify and gain approval for learning activities in accordance with your organisation’s requirements&lt;br&gt;• Allocate resources in accordance with assigned responsibilities and accountabilities&lt;br&gt;• Gain sign-off for cost budgets&lt;br&gt;• Negotiate time lines to take into account the needs and responsibilities of the job (e.g. a shift worker accessing training)&lt;br&gt;• Inform managers because they may have to adjust shifts and times</td>
</tr>
<tr>
<td>Gain stakeholder approval and ownership of the type of learning</td>
<td>• Involve stakeholders from the planning stage because aims, agendas and preferred outcomes may be distinctly different&lt;br&gt;• Consider the needs of three groups—those representing the company, those representing the workers, those with responsibility and accountability for any associated costs and outcomes&lt;br&gt;• Gain sign-off and approval to enhance implementation and avoid resistance to learning methods</td>
</tr>
<tr>
<td>Organise activities as learning opportunities</td>
<td>• Facilitate learning in the workplace by organising work activities in ways that provide opportunities to learn&lt;br&gt;• Plan, resource, implement and review tasks to be effective workplace learning opportunities&lt;br&gt;• Identify specific learning objectives to achieve results from these opportunities&lt;br&gt;• Keep the workplace learning learner-centred&lt;br&gt;• Make the learning performance-based and ensure it demonstrates results</td>
</tr>
<tr>
<td>Interact with individual learners</td>
<td>• Interact positively with learners as they participate in workplace learning opportunities&lt;br&gt;• Demonstrate supportive and encouraging behaviour, which creates a positive learning environment&lt;br&gt;• Provide support and reinforcement to build confidence&lt;br&gt;• Recognise skills and knowledge acquisition&lt;br&gt;• Celebrate greater productivity and reduced errors and accidents</td>
</tr>
<tr>
<td>Support learning by doing</td>
<td>• Encourage questioning and practise&lt;br&gt;• Let team members explore one another’s point of view&lt;br&gt;• Give and receive feedback&lt;br&gt;• Encourage problem solving and decision making&lt;br&gt;• Focus on specific issues&lt;br&gt;• Encourage teamwork and sharing of information, ideas and knowledge</td>
</tr>
</tbody>
</table>

Address equity issues

**Equity issues** refer to fairness or impartiality in access to opportunities in the workplace. In New South Wales, an organisation has a requirement under the *Anti-Discrimination Act 1977* to provide fair and equitable access to training and promotion for all staff. (Refer to [www.austlii.edu.au/au/legis/nsw/consol.act](http://www.austlii.edu.au/au/legis/nsw/consol.act) for more information regarding the legislative requirements for employers.) This legislation requires employers to make allowances for staff with special needs to ensure they are not disadvantaged in any way. The location, timing, entry requirements or content of a workplace training initiative may need to be adjusted to meet particular needs if the criteria discriminate on the basis of race, sex, religion, political opinion, national extraction, social origin, marital status, age or disability.

Some of the main issues regarding access to, and equity of, workplace learning initiatives are:

- Who is eligible to attend?
- Are there any prerequisites?
- Do the times/dates of learning sessions prohibit some participants from attending?
- Does the location of learning sessions prohibit some participants from attending?
- Are there facilities for employees with special needs?
- Does the home life of some staff prohibit them from undertaking learning sessions in their own time?
- Is there a financial cost to employees?
- Will there be a social cost to employees who attend?
- Do any employees have language/literacy/numeracy issues?
If some employees are excluded from learning, the manager, supervisor or team leader should clarify the reasons and criteria for inclusion or exclusion. Access considerations will depend on the type of workplace, the profile of the workforce and the type of learning.

**Ask yourself**

Implementing workplace learning develops employee capabilities and ability to handle new challenges, adapt to change and act in more senior positions. Benefits include higher job satisfaction and productivity, employee engagement and increased retention of staff.

**ASK YOURSELF:** What kinds of learning do you enjoy? What might an organisation do to attract and retain you as an employee? What can you contribute to a learning organisation?

**Recognise workplace achievement**

Team members who receive information and appropriate recognition are likely to perform and contribute positively to achieve better outcomes. Managers, supervisors and team leaders need to take a positive leadership role and acknowledge workplace achievement either formally or informally. Formal recognition of achievement may be an award, a commendation or a promotion. Informal recognition could be as simple as a positive comment about a job well done or a reward such as a celebratory lunch.

Best practice in the development of teams and individuals incorporates the following guidelines:

- Orient the team to the long-term vision as well as the short term.
- Provide clear information to guide work processes and tasks.
- Set realistic targets that are both challenging and achievable.
- Use participative leadership styles and encourage shared responsibility.
- Retain coordination, control and accountability.
- Delegate responsibility appropriately.
- Give constructive feedback, encourage openness and share decision making.
- Solve problems rather than entering cycles of blame and self-defence.
- Recognise achievement, and foster enthusiasm and genuine commitment.
- Support performance, ongoing learning and continuous improvement.

Motivation is enhanced when people know what to do, how to do it and have the opportunity to perform well. Refer to Table 8.9. Psychological rewards like knowing your work is worthwhile, achieving goals, receiving recognition, developing talent and potential career opportunities are the motivators from Herzberg’s theory. (Refer to Chapter 6 for more information.)

**Table 8.9 > Performance expectation and opportunity**

<table>
<thead>
<tr>
<th>Know what to do</th>
<th>Know how to do it</th>
<th>Have the opportunity to do it</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand job purpose</td>
<td>Have experience and qualifications</td>
<td>Leadership and sound management</td>
</tr>
<tr>
<td>Understand key result areas</td>
<td>Understand job purpose and responsibilities</td>
<td>Clear objectives, high expectations and standards of performance</td>
</tr>
<tr>
<td>Understand operating procedures</td>
<td>Understand significance of job</td>
<td>Clear work systems and procedures</td>
</tr>
<tr>
<td>Have SMARTTIA measures of success</td>
<td>Gain knowledge from learning culture and environment</td>
<td>Adequate equipment, tools and technology</td>
</tr>
<tr>
<td>Apply teamwork and perform maintenance roles</td>
<td>Access to training, mentoring and coaching</td>
<td>Appropriate resources, time and information</td>
</tr>
<tr>
<td>Know how the hot stove principle applies</td>
<td>Participate in action-based learning, after action reviews and self-directed learning</td>
<td>Clear communication, teamwork, and recognition and support</td>
</tr>
</tbody>
</table>
Good practice focuses the ongoing learning and development on the needs of the team and individual members. People know what to do, how to do it and have the opportunity to do it. The learning and development:

- has relevance to workplace practices, routines and challenges
- enhances competence and acquisition of up-to-date skills
- promotes performance to the required standard
- supports quality service provision to satisfy the expectations of internal and external customers
- has the support of the organisation, acknowledges and celebrates achievement.

Apply your knowledge

1. Work individually.

Scenario: After action review reflective learning

At the handover of a project’s major deliverables, Mario the manager called together those involved and said, ‘I’m glad that one is over. You all did very well, but I think we should learn from it. Can you stay for half an hour or so to do an after action review to see if we can do it better next time?’ As it was the end of the day he had arranged a few drinks, cheese and biscuits.

Mario had prepared the following flip chart headings for his after action review:

• What was supposed to happen?
• What actually happened?
• Why were there differences?
• What can you learn from this?

a) Comment on the effectiveness of Mario’s approach.

b) Prepare a list of the advantages for teams of reflective learning.

c) Decide how you would build team learning and trust into the after action review process.

2. a) Consider the following quote: ‘The ability to learn faster than your competitors may be the only sustainable competitive advantage.’ Brainstorm the benefits of learning to the organisation.

b) Explain how the ability to determine the development needs of their team benefits a manager, supervisor or team leader.

c) Brainstorm strategies managers can use to develop teams and individuals.

3. a) Think of one mandatory training program, one core and one developmental training program in your organisation.

b) Who delivers this training and how is it delivered?

c) Identify other workplace learning and development opportunities and describe who delivers it and how.

d) How is the learning translated into the workplace procedures and tasks?

4. Work individually or in small groups.

Scenario: Brett’s learning plan

During a department store’s monthly WHS committee meetings it was obvious to Jan, chair of the WHS committee, that one of the team leaders, Brett, had no skills in report writing. Jan decided to chat with Brett and encourage him to prepare an effective report on one of the current WHS issues. Jan knew that Brett had some good ideas about the topic. Jan suggested to the meeting that she and Brett work together on the report for the next meeting. After the meeting Jan worked with Brett to prepare a learning plan titled ‘WHS report writing’.

a) Prepare a learning plan for Brett. In the learning plan identify the learning strategies, the activities Brett will undertake, the activities Jan will undertake, and any resources available to Brett and the dates by which each activity will be completed.

b) How does negotiating the plan together advantage Jan and Brett?

5. a) Workplace learning requires managers, coaches and mentors to provide direction, knowledge and constructive feedback. Choose an example where you have been involved in workplace learning as the learner and describe the:

• direction
• knowledge
• constructive feedback you received in the learning situation.

b) Describe what you would do differently if you were providing the workplace training to a member of your team.
CHAPTER 8 Develop teams and individuals in a workplace learning environment

8.5 Monitor and evaluate learning

Whether learning takes place formally in a training program or continuing professional development program, or informally through learning opportunities such as on-the-job projects, after action reviews or quality circles, managers, supervisors and team leaders need to evaluate its effectiveness and on occasions suggest improvements.

Competency standards

National competency standards provide a nationally recognised benchmark against which workplace performance can be measured. Other documented workplace performance standards include:

- standard operating procedures
- safety legislative requirements
- customer service standards
- industry benchmarks.

A competent person is able to perform their work to the standard required in their workplace. A competency standard identifies what is to be done, to what standard and under what conditions. The elements of competence for the national unit of competence, BSBLED401A ‘Develop teams and individuals’ (Innovation and Business Skills Australia 2012) are:

1. Determine development needs
2. Develop teams and individuals

Competency in developing teams and individuals includes the skills to complete each of the tasks required to perform the element of competence to the standard identified in the performance criteria. A competent person also has the ability to respond to unexpected events and other factors in the environment.

The performance criteria in the BSBLED401A national unit of competency (Innovation and Business Skills Australia 2012) identifies the standard of performance required of a manager, coach or subject-matter expert with responsibility to develop teams and individuals in the workplace. Performance criteria are the standards against which performance is measured. It is critical to ensure performance is measured against an objective and transparent performance criteria or standard.

Table 8.10 is an example of one element from the national unit of competence HLTFA301C – Apply first aid. The three performance criteria (standards of performance) in column two must be demonstrated before a student is classified as competent to assess the situation before applying first aid. Refer to the website http://training.gov.au/Training/Details/HLTFA301C for the other three elements and performance criteria.

Table 8.10 > Example of element and performance criteria

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assess the situation</td>
<td>1.1 Identify, assess and minimise hazards in the situation that may pose a risk of injury or illness to self and others</td>
</tr>
<tr>
<td></td>
<td>1.2 Minimise immediate risk to self and casualty’s health and safety by controlling any hazard in accordance with occupational health and safety requirements</td>
</tr>
<tr>
<td></td>
<td>1.3 Assess casualty and identify injuries, illnesses and conditions</td>
</tr>
</tbody>
</table>

Ask yourself

Performance-based competency standards describe what people can be expected to do in their working roles, as well as the knowledge and understanding of their occupation that is needed to underpin these roles at a specific level of competence. Performance criteria are detailed and specific statements about what people are expected to do, to achieve.

ASK YOURSELF: Consider one of your routine work tasks. Write a statement to describe the task. How do you know you have achieved the required standard of performance? Write three or four specific statements about what you are expected to achieve and to what standard. How do written competency standards help you?
Assess competence

The assessment process uses the principles of assessment—validity, reliability, fairness and flexibility—although each assessor assesses in a manner that best suits the circumstances, individuals and needs of the organisation. Competency assessment involves assessing the ability of the person being assessed to:

- do the job
- transfer learning
- cope with problems
- communicate effectively.

All assessments of competence should comply with the four technical principles of assessment shown in Table 8.11. Correct application of these principles ensures people have the same opportunity to demonstrate competence.

Table 8.11 > Technical principles of assessment

<table>
<thead>
<tr>
<th>Principle</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validity</td>
<td>A valid assessment will assess against objective standards those competencies that are part of the performance required in the workplace.</td>
</tr>
<tr>
<td>Reliability</td>
<td>The same result will occur no matter who does the assessment.</td>
</tr>
<tr>
<td>Fairness</td>
<td>No person should be disadvantaged and assessors should use the same approach with each learner.</td>
</tr>
</tbody>
</table>
| Flexibility | The assessment must be valid, reliable, and fair and flexible in order to:
  - deal with formal or informal learning opportunities
  - accommodate any disability, for example, deafness
  - ensure familiarity with necessary equipment or work methods
  - allow varying time periods for assessment to give learners the opportunity to demonstrate their skills. |

In the case of national management competencies two things are fixed:
1. the competencies themselves (which are related to industry competencies)
2. the requirement that the same process and evidence of competence must apply regardless of who conducts the assessment or where it takes place.

Competence may be assessed in the workplace through:

- observation of the performance of a task or of the product from a task
- spoken or written answers to questions
- information from competency log books
- information from colleagues, managers or others
- previous qualifications such as certificates or licences.

Achieve improvement

Evaluation and review are essential parts of continual improvement. The learning process within any organisation needs to be viewed from the perspective of quality outcomes. This justifies the investment in learning and promotes the ideal of a learning organisation.

A review that is participatory encourages team members, both individually and collectively, to provide feedback on their learning experience. Evaluating and analysing what worked and what did not and for what reasons is the basis for planned improvements.

Procedure

A problem-solving approach or an after action review are two processes that can effectively review and improve learning. These approaches will work better when they follow the seven-step problem solving process in Table 8.12.
CHAPTER 8 Develop teams and individuals in a workplace learning environment

Table 8.12 Seven-step problem-solving process

<table>
<thead>
<tr>
<th>Step</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Write a clear definition of the problem</td>
</tr>
<tr>
<td>2</td>
<td>Think about the result you want</td>
</tr>
<tr>
<td>3</td>
<td>Identify the cause(s) of the problem</td>
</tr>
<tr>
<td>4</td>
<td>List any solutions to the problem</td>
</tr>
<tr>
<td>5</td>
<td>Select the solution that will give you the result you want</td>
</tr>
<tr>
<td>6</td>
<td>Put the solution into practice</td>
</tr>
<tr>
<td>7</td>
<td>Check that the solution works</td>
</tr>
</tbody>
</table>

Record results of learning

Records provide an organisation with:

- evidence to show how it meets its legal responsibilities and accountabilities in areas of mandatory training such as responsible service of alcohol (RSA)
- information about the number and type of skills and any skills gaps in the organisation
- a historical record of the learning, development and assessments undertaken within the organisation
- information for personnel records and evidence for remuneration and reward.

Records of performance and learning are essential to allow any organisation to meet the requirements shown in Table 8.13.

Table 8.13 Performance records

<table>
<thead>
<tr>
<th>Type of requirement</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative requirement</td>
<td>To document and record that all staff have received mandatory training before being allowed to advise customers (e.g. banking and insurance industry)</td>
</tr>
<tr>
<td>Human resource (HR) requirement</td>
<td>To document all personnel details, superannuation, bank account details or next of kin</td>
</tr>
<tr>
<td>Performance review system requirement</td>
<td>To record individual targets and achievements, skills and work-performance rating</td>
</tr>
<tr>
<td>Pay system requirement</td>
<td>To record individual and team targets for bonus payments</td>
</tr>
<tr>
<td>Training system requirement</td>
<td>To document and record all training activities undertaken by individuals</td>
</tr>
</tbody>
</table>

The record-keeping system in an organisation needs to integrate data from each of the specific requirements so that reports can be generated from the data. For example, a report is required at the end of the year that details each individual’s:

- targets and bonus payments
- learning and development activities completed
- work-performance rating by their manager, supervisor or team leader.

Recording the results of learning is an important part of any manager, supervisor or team leader’s job. Records of learning are useful, for example, in a performance appraisal. They:

- allow the manager conducting the appraisal and the person being appraised to understand the range and number of skills
- give a benchmark against which improvements can be measured in the future.

The information and reports may be used to prepare for the individual’s performance review or to estimate a pay increase, if appropriate. Most organisations will use a variety of record-keeping systems to handle this information, but integration of systems is a crucial component of selecting an appropriate system.
Apply your knowledge

1 Read the scenario and answer the questions that follow.

Scenario: Positive interaction

Mathew is a workplace coach. Whenever he was involved in a coaching session he made sure that he felt confident about his material. Mathew was relaxed, he smiled a lot, maintained eye contact and spoke in a friendly manner. As he provided information he would explain what he intended to do and what the learner had to do. He would always break the activities into stages and explain the process step by step and encourage questions.

Whenever the learner tried the task he added positive suggestions in a friendly manner and kept his coaching focused on what the learner needed to know. Mathew would also take the time to meet with the learner several times in order to give the learner the time to learn, reflect and practise the new knowledge and skills gained in the learning.

a) Identify the skills Mathew applies in his workplace coaching role.
b) How does he engage in a process of mutual inquiry and encourage the learner to be self-directing?
c) What benefits are derived from coaching based on work-related experiences and problem-centred activities?

2 Identify six of your work team’s activities and for each activity determine the standards of performance.

b) Describe how these performance standards are or will be communicated.
c) For one of the work activities you identified in (a), produce a learning plan. In your learning plan identify how you would evaluate and assess the performance of your team members against your identified performance standards.
d) How would you record the results?
e) Assume you will be assessing your team’s performance next week. Prepare a short presentation for your team on how learning will be evaluated and recognised. Include the principles of assessment in your presentation. The purpose of the presentation is to minimise the fears of your team members.

3 Prepare a short report for your manager on the actions you will take to promote learning in your work team. Include in your report:

a) the action plan you intend to follow in the next three months
b) how your actions will facilitate improvements to team performance
c) a set of questions to be used as a checklist to help you evaluate and assess your work team’s learning
d) how you will monitor your action plan.

KEY TERMS

action-based learning 211
adult learning principles 208
after action review 211
core training 207
developmental training 207
equity issues 216
explicit knowledge 208

learning organisation 207
learning plan 212
mandatory training 207
performance criteria 219
principles of assessment 220
self-directed learning 212
tacit knowledge 208
SUMMARY

**LO 8.1 Describe the strategies that managers, supervisors and team leaders can use to determine team and individual development needs.**

Managers, supervisors and team leaders encourage and support training and other learning and development opportunities. They coach teams and individuals in new and improved processes and systems and mentor individuals to develop new skills, acquire organisational knowledge and promote career development. They provide opportunities for job rotation and acting positions and encourage team members to assess their own competence against required standards. They use leadership and communication skills to channel skills development to improve the individual’s performance and career opportunities, and extend the organisation’s knowledge base and capability to meet current and future needs.

**LO 8.2 Distinguish types of workplace learning and development.**

Different types of workplace learning and development include mentoring, work shadowing, coaching, training, experiential learning, job rotation and on-the-job project work.

**LO 8.3 Develop a learning plan and explain its value for the learner.**

Learning plans identify what will be learnt, how and when it will happen, who will be involved and how performance will be assessed. An effective learning plan provides a clear, agreed process.

**LO 8.4 Outline strategies that sustain a workplace learning environment.**

Strategies that sustain a workplace learning environment include, in the planning stage, gaining approval for resources and time lines, stakeholder approval and ownership of the type of learning. Organise learning activities as opportunities to both learn and practice through mutual inquiry, feedback and problem solving. Ensure impartiality in access to training, learning and development opportunities. Verify the learning and development has relevance to workplace practices, routines and challenges, and promotes improvement in individual and team performance across the organisation.

**LO 8.5 Explain the value of monitoring and evaluating training and other learning and development activities.**

Competence may be evaluated and assessed in the workplace through observation of the performance of a task or the product from a task, spoken or written answers to questions, information from competency log books, and information from colleagues, managers or others. Participatory evaluation and review enables learners to give and receive feedback, recognition and encouragement. Any planned improvements should be implemented. Results should be documented as they provide the evidence needed to meet the requirements of relevant legislation, HR departments, performance reviews, pay systems, training, and learning and development records.

REVIEW QUESTIONS

1. Mandatory and core training are determined by the organisation. How can managers, supervisors and team leaders determine their team’s need for developmental training and learning?

2. Identify at least six types of workplace training and development delivered by managers, supervisors or team leaders.

3. Briefly explain the adult learning principles.

4. a) Describe the sequence to follow as you develop a team learning plan.
   b) What are the major components in a team learning plan?
   c) Why should a learning plan be agreed and signed before the learning and development begins?
PART 3 Understanding teams

5 a) How can managers, supervisors and team leaders facilitate and promote a positive learning environment?
   b) How do they address equity issues? Give examples.
   c) What type of workplace recognition for your achievements do you appreciate?
   d) How do you recognise the achievements of your work team?

6 a) Why should relevant stakeholders be involved from the planning stage of workplace training or development?
   b) Choose an area of learning for your team. Identify the stakeholders you would involve and explain why.

7 High performance standards and expectations and the opportunity to perform to, or above, expectations are motivating. How can a manager, supervisor or team leader ensure their team:
   a) knows what to do
   b) knows how to do it
   c) has the opportunity to do it?

8 a) Define the terms ‘competence’ and ‘performance criteria’.
   b) Identify three standards against which the performance of your team can be evaluated.
   c) Briefly explain the principles of assessment and their purpose.

9 a) What is the purpose of evaluation and review of learning and development?
   b) Briefly describe a procedure to follow in the review process.

10 a) Discuss the reasons for recording the results of learning and development.
    b) Give examples of how results of learning and development are used within an organisation.

WORKING TOGETHER

Work in small groups.
   a) Discuss and provide examples of the types of learning and development offered in an organisation of your choice.
   b) Choose one of the types of learning and prepare a set of guidelines for team leaders to use as they plan, deliver and evaluate the learning.
   c) A member of your team is highly skilled, experienced and personable. The person would make an ideal coach. Prepare a convincing case to motivate and empower the person to accept the role.
   d) Present the case as a group oral presentation.

EXPLORING THE WEB

1 Learn more about David Kolb’s experiential learning cycle by visiting ‘The Experiential Learning Cycle’ website at www.learningandteaching.info/learning/experience.htm.
   a) List the four stages in the learning cycle.
   b) ‘The four quadrants of the cycle are associated with four different forms of knowledge, in Kolb’s view. Each of these forms is paired with its diagonal opposite.’ Discuss the styles of thinking associated with each form of knowledge.

2 Learn more about self-directed learning by visiting www-distance.syr.edu/sdltools.html.
   a) What is the purpose of a learning contract?
   b) Answer the questions at www-distance.syr.edu/sdIcompetence.html to evaluate your competence for carrying out self-directed projects.
   c) Rate your self-directed learning skills by completing the self-rating at www-distance.syr.edu/sdlskills.html.
CHAPTER 8 Develop teams and individuals in a workplace learning environment

CASE STUDY 1: GROUP LEARNING AND DEVELOPMENT

Erik knew that there were different techniques to use when conducting learning activities for groups rather than individuals. Occasionally he had to assist on a course, but usually he conducted learning activities during meetings or in other informal settings.

Erik was aware of the strengths and weaknesses of the project work group. Apart from Brook (inquisitive), Chris (experienced but secretive) and Charley (after advancement) there were two other people in the group who had vast experience but said little, unless requested. Then there was Jack who was good at summing up what had been discussed, and there were a couple in the group who always had something to contribute although it was not always relevant to the topic.

It had been agreed that on Friday, after lunch, work on the project would cease while they conducted an after action review. This would take two hours. It was important enough to make the time available because there had been a very nasty environmental near miss: the holding pond had been badly contaminated on a job site when an open drum of highly volatile and flammable chemicals had been tipped into it by mistake. In addition, the standpipe had broken on a cement truck when it was being flushed out. It was stopped just before the holding pond overflowed into the offsite storm water drains.

Erik wanted to ensure that there was a constructive learning session about the contaminated pond. Before the learning session Erik said to Brook: ‘From time to time I’ll ask you if you have any questions. You just might note something that we missed.’ He invited Chris to find out all he could and to present a report to the meeting.

Questions

1. Review Erik’s approach to the after action review. What advantages are gained by involving the whole group?

2. List what other things he might do before and during the meeting to encourage productive involvement by as many of the project work group as possible.

3. Identify the potential positive and negative impacts group dynamics will have on the group learning process.

CASE STUDY 2: LUCILLE’S PROBLEM

Lucille sat at her desk in deep panic. She had to conduct a training session in a week and there was nothing in the whole world she dreaded more than public speaking. Just thinking about it made her break out in a cold sweat. Standing up in front of her work colleagues—some of whom were quite close friends—petrified her.

Her recent experience did nothing to help how she was feeling, if anything it made matters worse. Just yesterday she had completed a workshop that went over four straight days. It was horrible—a huge waste of time and money.

The workshop was about the introduction of new financial procedures and systems. The senior financial officer, Melinda, conducted the daily sessions.

The first problem was that nobody knew each other and nothing was done to break down the barriers. Further, after a time, Lucille realised that of the 25 participants, about half of them need not have been there at all. Except for a few minor matters, this group was well aware of the new procedures and systems. Some of them had even played a part in designing them and knew more about them than Melinda. The others were much less experienced staff members. These poor souls had spent four days totally confused; most of the time they just sat there in a daze.

There was no clear aim or purpose set out, neither at the start of the workshop, nor for any of the four day-long sessions. It was all theory, with Melinda standing up ‘preaching’ at them. She used PowerPoint and had nice pretty pictures, but that was about all—it looked good, but it was all for and show with terribly confused content! There was no variation from this format and the boredom at times was just awful.
PART 3 Understanding teams

Given Melinda’s approach and manner, very few questions were asked. When someone dared to speak and asked one, it got one of two responses: either the person was ignored or received a curt ‘yes’ or ‘no’ along with a sneer, which seemed to say ‘Are you dumb, or what?’.

Each session started off on a new topic and there was no opportunity to go over what had been done the day before. So what precious little you did learn was quickly lost. Melinda covered large pieces of information and it was unrelenting—one big complex procedure after the next, delivered rapid fire.

Another thing that Lucille experienced troubled her. When the workshop started she seemed to be a bit slow to catch on to the few ideas that she was able sifting out of all the confusion. For a while her understanding seemed to speed up a bit, but then she hit a ‘flat spot’ where she seemed to be taking just ‘small steps’ in terms of her grasp of things. She could not work out why her learning, what little of it there was, seemed to bounce up and down and was so uneven.

Just to add to the catastrophe, handouts and notes were never available on time and building work was going on in the next room for three of the four days of the workshop—what great planning!

At the end of the torturous four days, no one was asked what they thought of it all and there was no arrangement to make sure that what you did manage to glean from the ‘workshop classroom’ was actually applied back in the office—things were just left hanging.

Luckily Lucille has a good friend, Kate, who works part time and is studying to be a teacher. Kate has mentioned that she has studied learning theory in her course and she has done some practice presentations. Lucille sent Kate an email telling her of her disastrous experiences and asking if Kate could help her prepare for the session she has to deliver. Kate replied almost immediately and they set up a day and time for a meeting.

Kate also indicated that, in anticipation of their get-together, she would prepare a checklist of ‘dos and dont’s’ when conducting a learning/training session. Kate suggested that they could discuss the list when they met and Lucille could use it as a guide to avoid problems in her own, upcoming session.

Lucille was much relieved and thanked her lucky stars she had a friend like Kate.

*Source: John Hunter, Program Coordinator, Management Studies, TAFESA Adelaide City TAFE.*

**Questions**

1. Assume you are Kate and prepare a checklist of ‘dos and don’ts’ Lucille can use when conducting a training session.

2. Assume Lucille has decided to deliver the learning and development in coaching sessions rather than small group training sessions. Prepare a checklist of the phases in the coaching process Lucille could use to guide her through the process.

3. Compare the advantages and disadvantages of small group training sessions and coaching sessions.

In your answers draw on the concepts presented in this chapter.

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Tovey, Michael D. & Lawlor, Diane R. Training in Australia, 4th edn, Pearson Education Australia, Sydney, 2011.
CHAPTER 13

manage projects
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## Learning objectives

| LO 13.1 | Discuss the value of careful project scope and stakeholder definition. |
| LO 13.2 | Develop project plans to determine what a project will entail, when it will be scheduled, who will be involved, what quality level will be maintained and what the budget will be. |
| LO 13.3 | Outline the steps to administering and monitoring a project effectively. |
| LO 13.4 | Explain the importance of finalising deliverables and reviewing project processes, outcomes and lessons learnt from the project. |
Project managers undertake a range of activities including defining stakeholder expectations, scoping project deliverables, developing work breakdown structures and network schedules, minimising project risk, developing the project plan and schedule, and ensuring project quality by aligning objectives, processes and improvements. They monitor and control time, cost, quality and project scope over the life of a project.

Project managers lead and work with project teams to sustain commitment, motivation and urgency. They report project performance, communicate intent, monitor performance, take corrective action as required, finalise the project handover, and review project processes and outcomes against the project scope and plan.

13.1 The project management process

A project is a temporary, planned and organised activity with a defined beginning and ending. It usually exists within the framework of a larger organisation and may be dependent on the larger organisation for finance, resources or guidance.

Confirmation of the level of support and involvement the organisation or sponsor will offer the project is crucial. Ask the following questions: ‘Will the project be needing to use resources from the organisation and how will resources be approved? Does the outcome for the project fit with the organisation’s objectives? Does the organisation have the funds and resources to complete the project? Does the organisation expect status reports? If so, how often?’

Consultation with the sponsor and their delegating authority from the outset decreases the likelihood of problems midway through the project life cycle illustrated in Figure 13.1. Information collected through consultation is documented in the project’s terms of reference.

Scope definition

Scope statements typically include project objectives, deliverables, milestones, specifications, limits and exclusions. The specification for a project is a brief, clear and complete one- to two-page document. A clear written definition of what is required and by when increases the likelihood of the project’s success.

The scope statement focuses the project manager, team and other stakeholders on the project purpose and provides evidence of what has been agreed. It identifies deliverables clearly and becomes part of the project plan. Scope definition provides focus, clarifies the end item(s) of the project, mitigates the risk of scope creep and describes what will be delivered in specific, measurable terms.

Typical steps in the project scoping phase are shown in Figure 13.2. Each of the six steps in the figure can be used as headings in the written scope statement.

Good practice: Stakeholder management

Stakeholder analysis is the technique used to identify the key people who have to be won over. The benefits of using a stakeholder-based approach are that:

- you can use the opinions of the most powerful stakeholders to shape your projects at an early stage; not only does this make it more likely that they will support you, their input can also improve the quality of your project
- gaining support from powerful stakeholders can help you to win more resources—this makes it more likely that your projects will be successful
- by communicating with stakeholders early and frequently, you can ensure that they fully understand what you are doing and understand the benefits of your project—this means they can support you actively when necessary
- you can anticipate what people’s reaction to your project may be and build into your plan the actions that will win people’s support
- by engaging the right people in the right way in your project, you can make a big difference to its success—and to your career.

CHAPTER 13 Manage projects

Figure 13.1 > Project life cycle

- Defining—clarify scope, establish objectives, form teams, assign responsibilities
- Planning—determine what, when, whom, quality levels and budget
- Executing—administer and monitor project
- Closing—deliver project, redeploy project resources and review performance and capture lessons learned

Figure 13.2 > Project scoping phase

- Step 1. Define overall project objective
- Step 2. Define major deliverables
- Step 3. Develop milestone schedule (major segments of work and control points)
- Step 4. Detail technical requirements
- Step 5. Define limits of scope of work and exclusions
- Step 6. Review understanding and agreement with customer

Scope definition
Figure 13.3 is a typical statement of responsibilities of the project manager’s role.

The project manager is responsible for:
- ensuring the scope of the project details
- planned target outcomes and performance measures
- customers who will utilise the outcomes
- resources required to complete the project
- timeframe and cost estimates
- uncertainty and risk to the project’s scope, budget and schedule.
- monitoring the project to detect and correct any deviations that may affect the final outcomes
- leading the project team to successful completion and delivery
- communicating information to stakeholders as per the communication plan
- finalising and reviewing project outcomes with project team and relevant stakeholders.

**Figure 13.3** > Statement of responsibilities

**Project documentation**
Documents will include the contract agreement, project plan or summary, and documents outlining the expected outcomes of the project, inclusions and exclusions from project, time frames for project, required resources, risk(s), and target activities and result indicators.

The documents in Table 13.1 are utilised in the project definition stage. This list is not exhaustive and will vary according to the organisation.

**Table 13.1** > Project information documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project brief</td>
<td>Documents facts about the project, including the rationale, benefits, budget and time lines</td>
</tr>
<tr>
<td>Terms of reference</td>
<td>A contractual agreement setting out information that includes a statement detailing the project expectations, the managerial directions, the assistance required from other bodies, and the tools and methods that will be used throughout the project; it clarifies the project position, directions and specific methods, and determines the roles and responsibilities of team members in a project organisational structure</td>
</tr>
<tr>
<td>Project scope statement or scope of work (SOW)</td>
<td>Identifies the boundaries of the project, defines the objectives and specifications for the project, and identifies the deliverables as well as any limits or exclusions (see Figure 13.2). Clear project scope statements link the project and client to facilitate planning and control</td>
</tr>
<tr>
<td>Risk assessment</td>
<td>Records risks to a project’s scope, budget and schedules, and contingency plans to deal with anticipated risk(s)</td>
</tr>
<tr>
<td>Feasibility study</td>
<td>A detailed investigation and analysis conducted before a project is approved to determine the financial, economic, technical or other advisability of a proposed project</td>
</tr>
<tr>
<td>Cost–benefit analysis</td>
<td>Calculates and compares the costs and benefits of a project</td>
</tr>
<tr>
<td>Project proposal</td>
<td>Recommends or rejects the project—it is usually quite detailed, with information on the stakeholders, the desired outcome, deliverables, management issues and various strategies</td>
</tr>
</tbody>
</table>

**Stakeholder analysis**
Defining the project in consultation with stakeholders ensures it meets their requirements and expectations. Stakeholders might include:
- the project sponsor, alliance partners or funding bodies
- senior executives, management and the project team
- relevant key personnel (internal and external) with special responsibilities such as suppliers, lenders and analysts
• clients or customers (internal and external)
• interest groups, the press, the public and community groups, trade associations and government authorities.

Effective stakeholder analysis follows three steps. Step 1 involves identifying those affected, those with influence or power over the project and those who have an interest in its successful or unsuccessful conclusion. Step 2 involves prioritising stakeholders in terms of those who have an interest in the project and either the power or influence to block or advance the project. Step 3 involves understanding key stakeholders’ requirements and expectations. Management and engagement of stakeholders is critical to the success of any project.

Ask the following key questions to understand stakeholder interests and expectations.

- What does this stakeholder need from the project?
- What financial or emotional interest does the stakeholder have in the project outcome?
- What role or responsibility does the stakeholder have, if any?
- What pressures is the stakeholder experiencing?
- What information will the stakeholder require, and in what form?
- What power and influence does the stakeholder have?
- What special requirements does each stakeholder have (such as reporting and consultation arrangements)?

Developing a detailed profile of each stakeholder in a stakeholder analysis is a useful way to answer the questions.

Stakeholder profile

Classify stakeholders in terms of their power over the project and their interest in the work on the power/interest grid shown in Figure 13.4. Analyse the power/interest grid to determine the importance of each stakeholder and understand key stakeholders’ perceptions and likely reactions to the project. Decide how best to engage and communicate with them over the life of the project.

Figure 13.4 > Stakeholder prioritisation—power/interest grid

Stakeholder A in the ‘manage closely’ grid has high power and high interest, so communication should be regular and informative. Stakeholder B has high power and low interest so they must be kept satisfied. Stakeholder C has low power and low interest and requires minimum effort. Stakeholder D has high interest and low power and should be kept informed.
The information on the power/interest grid can then be entered into a table, such as the sample in Table 13.2, included in the project plan and used throughout the project to meet stakeholders’ needs.

**Table 13.2  Stakeholder analysis**

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Description</th>
<th>Primary need (stake)</th>
<th>Information needs</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents, landlords, commercial</td>
<td>Users of the waste service</td>
<td>Need effective waste disposal services, as invisible as possible, with extra services such as recycling, green waste removal and pick up of large waste</td>
<td>Quarterly updates via Council newsletter</td>
<td>Have no direct role or responsibility other than placing their waste for disposal as per instructions</td>
</tr>
</tbody>
</table>

The benefits of stakeholder analysis are using the opinions of the most powerful stakeholders to shape the project, gain their support and win more resources. Regular communication with stakeholders ensures they understand the project’s purpose, benefits and relationship to other organisational activities. Anticipating the various stakeholders’ likely reactions to the project and identifying potential misunderstandings helps to win and maintain stakeholder support over the project life cycle.

**Ask yourself**

As the work you do and the projects you run become more important, you will affect more and more people. Some may be strong supporters of your work. Others may have the power to undermine your projects and your position.

Create your own example of stakeholder analysis at work—whether for a task in your current role or a new project.

**ASK YOURSELF:** What motivates your stakeholders? Are you communicating as effectively as you should be with your stakeholders? What actions can you take to get more from your supporters or win over your critics?

**Clarification of issues**

Before the project begins seek clarification from the project sponsor, manager or management representative, funding body, customer or client on any issues related to the project and the project parameters. This minimises the risk of misunderstandings or problems later on.

Issues may relate to project parameters such as:

- the scope of the project
- timelines, finances and any specific procurement requirements associated with the project
- integration of the project within the organisation
- physical, human and technical resources required
- risks associated with the project, including workplace health and safety
- reporting and any legislative or industry requirements.

Establish who has the authority or power to make final decisions, who has the responsibility or the obligation to perform tasks, and who has accountability—the state of being answerable for the completion of tasks, milestones and the project deliverables. In the project definition stage ensure clarity upfront to enable the client to understand what will be done and to recognise the need for compensation for major variations or changes in direction.

Issues arise when:

- stakeholders are slow with communication—waiting for responses to queries and approval can impact on the flow of work and achievement of milestones
- the point of contact sees the project as a low priority and is slow to respond to queries
- a stakeholder is dissatisfied with the way the project is progressing.
When a client is unsure of what they want, ensure the schedule has identified milestones, maps a path from start to finish clearly, and shows how much leeway is available for any variations. As well as showing the sequence and interdependencies between project activities, a clear project plan and schedule forces the client to be specific with their requirements and keeps the project on track. Establish guidelines and explicit boundaries at the beginning of a project to show stakeholders major deliverables, their milestones, and the date of project finalisation and handover.

Apply your knowledge

1. Outline the major phases of a project’s life cycle.
2. Assume you are to fit out a floor of new building as office space for the organisation you work for or an organisation of your choice.
   a) Develop a project scope statement.
   b) Identify the stakeholders in a stakeholder analysis table.
   c) Write a statement of responsibilities for the project manager position.
   d) Develop a list of project parameters.

13.2 Developing a project plan

Project plans build on the information collected in the scoping (defining) stage of the project. They allow the project manager and stakeholders to monitor progress and compare actual to predicted outcomes and take corrective actions as necessary. A project organisational chart identifies roles, responsibilities and accountabilities, and describes reporting arrangements.

The project plan must include project goals and objectives, a work breakdown structure and network schedule to show the sequence and interdependence of activities, tasks and responsibilities, evaluation criteria and communication plan. The plan will show how risks will be managed, identify required resources, budget, timelines, milestones and project deliverables.

Every project represents a fine balance of tasks, time, quality, resources and cost. Consider any uncertainties and constraints that exist now or are likely to arise over the project life cycle, and then prepare the work breakdown structure (WBS).

Work breakdown structure

A work breakdown structure (WBS) is a hierarchical breakdown of a project into successive levels. Each level contains more detail and shows how the elements of work to be accomplished relate to each other and the end product. WBSs usually require only three levels; however, very large projects may require up to six levels. The major groupings in a WBS are identified in Figure 13.5.

The project manager consults with team members and other specialist stakeholders to create the WBS. The WBS integrates all tasks into a system of work that links tasks, task decision points and milestones. Each task is assigned a duration, resources and costs. The WBS must be approved by the project manager and the client.

The purpose of the WBS is to enable the project manager and team to undertake the activities in an organised way. The WBS determines:
- what tasks need to be completed to reach the major outcome
- a unique ID number for each task
- the expected duration for the task
- which tasks depend on other tasks
- the resources for each task
- the direct and indirect costs for each task.
An effective WBS breaks the project activities into a set of simpler tasks that together achieve the desired result and provide a sufficient description of the activity to use as clear instructions for the person who will do the work. You can make a task a milestone. A milestone is a significant point in the project and has no duration, cost or resources assigned to it.

**Work packages**

Each work package is a portion of the WBS that identifies essential steps involved in the completion of the work. Larson and Gray (2011, p. 110) explain: 'Work packages are short duration tasks that gave definite start and stop points, consume resources, and represent cost. Each work package is a control point.' Multiple teams may complete work packages simultaneously.

A work package:
- defines the work and how long it will take in a schedule
- identifies who is responsible for the work
- identifies resources and budget required to complete the work package
- identifies monitoring points to measure progress.

**Project network**

The network is a graphic flow chart of the project job plan. It is a logic diagram developed from the information collected for the WBS. The project network depicts the start and end dates, the sequence and interrelationships, and accurate time estimates for project activities.

---

**Figure 13.5**  
Hierarchical breakdown of the work breakdown structure


An effective WBS breaks the project activities into a set of simpler tasks that together achieve the desired result and provide a sufficient description of the activity to use as clear instructions for the person who will do the work. You can make a task a milestone. A milestone is a significant point in the project and has no duration, cost or resources assigned to it.
The network provides project managers with an information system from which to make decisions concerning project time, cost, and performance. Other stakeholders can view the network schedule to verify the status of the project plan, analyse progress and evaluate alternatives.

Network scheduling is integral to the project’s risk management, financial and technical management processes. It is an essential element of organising, leading, assigning tasks, controlling, finalising and reviewing a project. An effective schedule provides a baseline for project monitoring, reporting and controlling the project. A properly executed schedule opens communication among the project team and other stakeholders, as well as supporting time and cost estimates and establishing commitment to project tasks and milestones.

A four-step process to follow for schedule preparation is:
1. Define the activities.
2. Sequence the activities.
3. Estimate the duration of the activities.
4. Develop the schedule and schedule controls.

Common methods to develop network schedules are PERT charts, critical path method, and Gantt or milestone charts.

**Ask yourself**

The components in network development are sequencing and estimating the duration of activities, determining resource requirements and availability, preparing calendars to show when the work will be performed, identifying assumptions, constraints and risks. The challenge in project management is to develop a project network that balances schedule, risk, cost and performance.

**ASK YOURSELF:** Which stakeholders would you involve in defining and sequencing the activities in a network schedule? How would you identify the schedule controls?

**Activity-on-node method**

Activity-on-node (AON) (sometimes called the precedence diagram method) is an activity sequencing tool that uses nodes to represent the project activities. Nodes are portrayed as boxes or rectangles connected with other nodes by arrows to show how the activities are connected and the sequence in which things must be done.

Three basic relationships must be established for a project’s activities before a visual representation of the sequence and logical interdependencies of the activities can be constructed.

1. Predecessor activities must be completed immediately before an activity.
2. Successor activities immediately follow an activity.
3. Concurrent activities or parallel activities occur as other activities take place.

AON diagrams are designed to show the sequence and interdependencies between activities. The AON diagram in Figure 13.6 shows a ‘finish-to-start’ precedence—one activity must be finished before the next can start. Activities A and D must be done before activity E can begin; activity F must be done before G; activities A, D and F are concurrent; A is a predecessor to B; B is a successor to A and a predecessor to C.

**Figure 13.6 > Activity-on-node diagram**

**Nodes** are predetermined points in the project’s schedule network that typically represent meeting points of some or all of a series of specific dependency lines and/or significant occurrences that may take place during the course of the project.
**PERT charts**

The Program Evaluation Review Technique (PERT) chart follows on naturally from the WBS. It takes the tasks from the WBS and charts them graphically, whereby the tasks are connected by arrows that illustrate their relationships. The timeline is less important in a PERT chart: the sequence of tasks is the highlight. Figure 13.7 illustrates a basic PERT chart. The critical path (longest path) is from the start to F to G to C to the end (6 + 12 + 4 + 6 = 28).

![PERT chart](image)

To draw a basic PERT chart, take the tasks from the WBS and place them in boxes (nodes). Connect each task using arrows, reflecting their dependencies (each task has a predecessor and is a predecessor for another task, unless it is the start or finish task).

One of the primary advantages of a PERT chart is its ability to highlight errors in the schedule or task flow. A PERT chart also shows paths through the project—sometimes just one, sometimes several. It also identifies which path is the most critical. PERT facilitates determination of the critical path for the individual tasks and allows the project to meet its deadline.

**Critical path method**

The critical path method identifies which task, series of tasks or milestones are crucial to the completion on time of the project. If a task, or tasks, must be completed at their place in the schedule for the project to be successful, their completion is critical. Critical paths are those that are:

- the longest from the start of the project to the finish
- contain tasks that cannot be started later than scheduled without endangering the project’s completion date.

The critical path method identifies constraints and/or relationships among tasks and establishes the order in which the tasks will be accomplished. Determine the critical tasks or milestones within the schedule by identifying the:

- longest paths, that is, tasks joined together by predecessor relationships
- tasks with zero float, that is, cannot be started later than the scheduled start date without delaying the project’s scheduled completion time
- tasks or milestones driving the end date of the project
- shortest completion time of the project.

A critical activity can be:

- a single task—known as a critical task
- multiple (independent) tasks—known as critical tasks
- multiple (dependent) tasks—known as the critical path(s)
- a milestone—known as the critical milestone.
The longest path through a network is critical because delays or non-completion of its tasks will prevent the project from meeting its deadline. The critical path is important because it helps to ensure the final outcome happens on time and within agreed budgets. By considering the critical path in the planning stage, project managers are able to verify if the project schedule is achievable.

**Gantt or milestone charts**

Gantt charts are a combination of the WBS and PERT networks. Gantt and milestone charts display the actual versus the planned progress of a project and draw attention to any variation from the planned schedule. The Gantt chart plots tasks graphically against the timeline and identifies milestones.

However, it is typically helpful in attempting to ensure that the project is moving effectively as well as to allow points in time for the project team to pause and look back on what has occurred.

Milestones identify accomplishments as points in time or significant events that allow the project team to verify progress is on track. Milestones can occur at any significant point throughout the project and typically refer to completion points for large schedule events and the beginning of the next series of events.

As well as communicating progress against tangible measures, milestones provide evidence of progress towards the project’s completion for senior management or the project sponsor. Milestone accomplishment allows the project team to celebrate their shared responsibility and accomplishment.

Figure 13.8 illustrates a Gantt chart from Microsoft Project.

![Gantt chart](image)

**Figure 13.8 > Gantt chart**

A Gantt chart plots each task on a vertical axis and shows the tasks ahead as well as the work already completed. An effective Gantt chart defines the critical path, allows the assigning of resources and information to the task and clearly displays task dependencies, milestones and tasks with lead or lag time assigned.

In Figure 13.8, the second task has a significant lead-time into the first task and the chart shows which task follows on from which. The timeline is clearly displayed across the top and non-working hours such as weekends are omitted.

In addition to the availability of computer software packages to develop a Gantt chart it is possible to pin strips of paper to a noticeboard or whiteboard, or use pen and paper, depending on the complexity of the project and the skill of the users. In general, follow these guidelines:

- List tasks down the left-hand side.
- Place the timeline across the top.
- Indicate predecessors and successors with arrows.
- Shade the portions of activities accomplished to track progress.
- Use the Gantt chart for reporting project status.

The use of computer software to draw Gantt charts allows the entry of progress information about each task such as resource and cost data, and the mark off of the percentage of task(s) completed.

Gantt charts are also useful for schedule simulation. In a simulation, the project manager and/or team can try out different combinations of time, cost and resources to see what effects this will have on the schedule. The preferred schedule is then chosen. Schedule simulation is a form of contingency planning for any variations in time, resources or budget that may occur during the project. If any of the contingencies identified in the schedule simulations occur, strategies to deal with them have already been considered. By consulting with
subject matter experts and asking those with project experience to check the project activities, tasks and schedule, it is possible to identify gaps in the project plan and discuss options to fill the gaps. The Gantt chart becomes a valuable monitoring tool.

Establishing controls

Controls are the means to monitor and influence a project’s progress. Cost, time and budget estimates are the standards against which actual costs, time and budgets are monitored. An effective project plan identifies controls to ensure project tasks are implemented and enhances monitoring and identification of any time-based variations, cost-based variations, specification-based variations and resource-driven variations.

Project control steps

The project baseline refers to the cost, schedule and resource allocation in the approved project plans. The project’s baseline is used to measure how performance deviates from the plan. The project baseline allows the project manager to measure and manage project time and costs. Performance measurement is only meaningful if the baseline—the original scope, cost and schedule—is defined and documented accurately in the project plan.

Table 13.3 describes the four-step process for measuring and evaluating project performance.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1. Setting a baseline | Derived from:  
• cost and duration data in the work breakdown structure  
• time-sequence information in the network schedule |
| 2. Measuring progress and performance | Involves:  
• determining critical path is on schedule  
• comparing actual against budget and ensuring budgeted cost of the work performed is on track |
| 3. Comparing plan against actual | Measures deviations from plan to:  
• determine if corrective action is necessary  
• monitor and measure status of project against expectations in project plan  
• create status reports and allow for proactive correction before major deviations occur |
| 4. Taking action | Corrects deviations by:  
• taking action to align project to original or revised plan  
• incorporating new information and/or change into the baseline plan |

Effective control is dependent on information. Control requires the project manager and team to use information in the WBS, the project network and the Gantt and control charts to compare what is happening with what should be happening. Timely action to correct deviations can remove the cause, minimise the impact of problems and enhance the opportunity for successful project completion.

Ask yourself

The Project Management Institute (2012) offers the following definitions:

A project is temporary in that it has a defined beginning and end in time, and therefore defined scope and resources … Project management then is the application of knowledge, skills and techniques to execute projects effectively and efficiently.

ASK YOURSELF: What are your strongest skills in project management? What skills in project planning do you need to strengthen? What other areas of your work can benefit from capabilities in project management?
Estimating time and costs

Cost estimating is the process of developing an estimate of the costs and resources needed to complete a project. Accurate cost and time estimates reduce the uncertainty inherent in all projects. The size of deliverables, effort or number of people times the number of days, weeks or months, and the project duration, productivity and quality have an impact on the magnitude of costs of a project.

Estimating processes

Table 13.4 identifies methods in two common estimating processes—top-down estimates and bottom-up estimates. Senior management usually create the top-down estimation on the basis of their experience, information and mathematical relationships. People who are doing the work and have experience with the activities, tasks and procedures usually create the bottom-up estimates from the WBS. Estimates are created for all tasks at the lowest level of the WBS and accumulated to determine the estimates for the whole project.

<table>
<thead>
<tr>
<th>Two approaches to estimating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top-down approach</strong></td>
</tr>
<tr>
<td>Consensus methods utilise the combined experience of senior and middle managers to estimate time, costs and resources</td>
</tr>
<tr>
<td>Ratio methods use a statistical relationship between historical data and other variables, for example, square metres of an office multiplied by cost of refurbishment per square metre—reliant on collection and analysis of previous project cost data to develop the cost estimating relationships</td>
</tr>
<tr>
<td>Apportion methods use the work breakdown structure to estimate costs—useful when a project closely parallels a past project’s features and costs</td>
</tr>
<tr>
<td>Function point methods use weighted macro variables called function points, usually for software and system projects</td>
</tr>
<tr>
<td>Learning curves draw from historic experience to determine patterns of improvement when the same tasks or product are repeated several times</td>
</tr>
</tbody>
</table>

Project budget

Three types of project costs are:

1. direct costs, which are costs that are clearly chargeable to a specific work package, such as labour, materials, equipment and other
2. direct project overhead costs, which are directly tied to an identifiable project deliverable or work package, such as rents and specialised machinery
3. general and administrative overhead costs, which are organisation costs indirectly linked to a specific package that are incurred over the project life cycle.

The project budget is derived from the estimate of each work package and predicts how much will be required to integrate the project scope, schedule and resourcing for accomplishing the project and when it will be spent. The budget should estimate all of the expenses including the direct, indirect and overhead costs of resources, equipment, materials, facilities and other items.

The key term in project management is accountability. The purpose of the project budget is to:

- predict and estimate costs
- measure and record actual costs
- compare actual to estimated costs
- communicate information gathered to stakeholders
- learn from the review and apply the learning to the next project.

The information provided in the budget can be used to make informed judgments and decisions in the next project. In the review process, the actual costs are compared to the projected costs and the reasons for any variations analysed.
A budget is a forecast. In the finalisation stage the actual expenditure and revenue (if any) are compared to the initial projections contained in the budget, hence when preparing the budget evidence should be provided in writing to defend any variations in the initial estimates. Always:

- state in writing the assumptions underpinning the budgets
- show the level of tolerance stakeholders accept
- show how the estimates were derived.

Typical reasons for any discrepancies between the budgeted forecasts and actual financials are:

- unexpected rises in costs over the life of the project
- errors when calculating the costs against project activities
- errors when transcribing figures into reports
- too little or too much time in the approved project schedules
- changes in the client’s requirements that lead to changes in the project’s scope
- insufficient qualified and competent skilled workers for the project
- inaccurate allocation of technical resources and equipment
- unexpected contingencies in the market; for example, supplier goes out of business.

**Guesstimation**

Guesstimation is another of the recognised project management techniques for estimating time. Note the guesstimate is unlikely to be exactly right; it must, however, be reasonable.

Experienced project managers have the advantage of their experience to help them make the guesstimate. Defensive scheduling is built into the guesstimate to avoid being too optimistic and unrealistic about timelines. Unexpected difficulties may arise so a little extra time or slack may provide the team with some tolerance against mistakes.

The WBS, PERT chart and Gantt chart enable an estimate of cost and time against each activity or work package. A guesstimate of the time each task will take is usually included at the bottom of the WBS in a sequence diagram. This keeps the information in the one document and the project manager, team members and other stakeholders can access information that is simple, clear and found in one place.

**Allocating resources and tasks**

Six resource types typically used in a project are human resources, plant and equipment, materials, working capital and finances, information and technology. These resources may come from within or outside the organisation.

Determining and accessing resources is split into three parts: determining resource needs, determining where resources will come from and gaining approval to use the resources.

The focus of resource allocation is on meeting the project’s time, cost and specifications in the best possible way. Two main types of resource allocation are:

1. time-limited resource allocation—time overruns cannot be tolerated
2. resource-limited resource allocation—no more resources than those allocated can be used.

Three useful formulae to calculate work, duration and resources are:

1. work = duration multiplied by resource units
2. duration = work divided by resource units
3. resource units = work divided by duration.

If the time allocated is insufficient, the size of the project will have to be reduced or more resources allocated to complete it within the limited time. If there are insufficient resources, the scope of the project may have to be reduced to fit the resource limitations. A project manager should ensure available resources are:

- adequate to resource the project through the whole cycle
- prioritised and determine any risks for the project
- supported by commitment from management to provide adequate resources.

The various tasks on the WBS and schedule are allocated to different people in the project team. The existing skills and experience of each member of the project team and how to group together dependent tasks that use common ideas, information and skills should be considered in order to minimise start-up times.
The sequencing and allocation of the tasks must complement task relationships. Table 13.5 identifies four types of task relationships. Monitoring the start and finish relationships helps to avoid time overruns.

Table 13.5 > Task relationships

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finish–Start relationships</td>
<td>Exist where Task B cannot start before its predecessor Task A has finished, for example, passing the baton in a relay race</td>
</tr>
<tr>
<td>Finish–Finish relationships</td>
<td>Exist where Task B cannot finish until its predecessor Task A has finished</td>
</tr>
<tr>
<td>Start–Start relationships</td>
<td>Exist where Task B cannot start until its predecessor Task A starts. The emphasis is on Task A starting; for example, the car ahead of you that is stopped at the traffic lights—the finishing line or time doesn't impact</td>
</tr>
<tr>
<td>Start–Finish relationships</td>
<td>Exist where Task B cannot finish until its predecessor Task A starts. Task A must have started for B to finish</td>
</tr>
</tbody>
</table>

Managing risk

Risk management attempts to recognise and manage potential and unforeseen difficulties or threats that may arise over the life of a project. The AS/NZS ISO 31000:2009, Risk management—Principles and guidelines standard identifies the following steps in the risk management process: (1) establishing the context, (2) identifying the risks, (3) analysing the risks, (4) assessing and prioritising the risks, (5) treating the risks, (6) monitoring and reviewing, communicating and consulting. Refer to Figure 19.1 on page 527 for an illustration of the risk management process.

Risk is inherent in any project and includes an error in time or cost estimates or a misallocation of resources. Risk management minimises the consequences of uncertainty and deviations from what is planned or expected by identifying what can go wrong, what can be done about the possible risk before the project begins, how to handle the event if it does happen (contingency planning) and how to source contingency funds. Project managers and other stakeholders are concerned with uncertainty and the potential impact of deviations from the project plan.

Risk breakdown structure

The risk breakdown structure (RBS) identifies the various areas and causes of potential risks. The RBS shown in Figure 13.9 identifies three categories of risk—technical, cost and external. The RBS facilitates understanding of the areas of a project that might require special attention to reduce the likelihood of any undesirable events.
The insights gained from identifying and categorising risks in a RBS reveal root causes of risk and expose the most significant sources of risk to the project. When a risk is identified, it is assessed to determine how to treat the risk. Five alternative ways of treating risk are shown in Table 13.6.

Table 13.6 > Responses to risk

<table>
<thead>
<tr>
<th>Response</th>
<th>Description</th>
</tr>
</thead>
</table>
| Mitigate risk | Reduce the likelihood of the undesirable event, for example, by testing on a sample  
                  Reduce the impact of the adverse event on the project, for example, by installing a back-up process |
| Avoid risk   | Eliminate the risk or condition, for example, by changing the project plan |
| Transfer risk | Pass the risk to another party, for example, fixed-price contract or by insuring against risk |
| Retain risk  | Accept the risk of an untoward event occurring, for example, an unexpected cost over-run |
| Share risk   | Ameliorate risk and/or capture opportunities, for example, by sharing with a specialist team |

Contingency planning

Risk assessment focuses on risks that can impact on the whole or significant parts of the project. High-risk areas are critically evaluated and contingency plans for responding to an identified risk event are developed first. Then contingency plans are developed for less consequential risks.

Contingency planning involves identifying risks, estimating the effects they may have and formulating a plan to deal with them. The tolerance for risk and the treatment alternative chosen—mitigate, avoid, transfer, retain or share the risk—will depend on the likely impact of the risk on the project’s scope, budget and schedule. Three tolerance levels are described in Table 13.7. The amount of exposure to risk informs decision making about how to treat the risk.

Table 13.7 > Tolerance levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Averse</td>
<td>Risky events avoided, with an emphasis on caution</td>
</tr>
<tr>
<td>Neutral</td>
<td>Risky events managed, with an emphasis on balance</td>
</tr>
<tr>
<td>Seeking</td>
<td>Risky events managed, with an emphasis on experimentation</td>
</tr>
</tbody>
</table>

A contingency plan indicates what to do if unplanned events occur. They may be as simple as asking and recording the responses to ‘What if ...? ’ questions or be a formal alternative plan to be used if a possible risk event becomes a reality.

A contingency plan answers the questions of what, where, when and how much action to take when contingencies occur. The keys to effective contingency planning are:

- recognising the key points in the project plan where alternative courses of action are possible and thinking through the possible scenarios for each one
- learning from experience and the risk profile about patterns of unpredictable peaks and troughs in activity
- identifying in advance those milestones which if missed will significantly impact on the project
- keeping all stakeholders informed and up to date on progress so that remedies or work-around plans can be applied to events before they cause significant disruption.

The purpose of contingency planning is to pre-empt many of the problems caused by uncertainty about how to deal with anticipated or new risks. Contingency planning evaluates alternative remedies for possible anticipated events before the event occurs. Clear documentation of the contingency plan facilitates communication, coordination and action should the risk event happen.

Documenting and integrating into the WBS every approved change caused by contingencies maintains the currency and accuracy of the WBS. As well as tracking the allocation of contingency funds and the cost of changes, recording approved changes shows who is responsible for implementing and monitoring the change. The response and treatment of a risk event is visible to all relevant stakeholders.
Risk register
Identified risks should be documented in a risk register. A risk register identifies each risk and its category, the probability of occurrence, responses or treatment plans, owners of the treatment actions and the current status. Refer to Table 19.2, on page 531, for an example of a risk register showing the consequences and likelihood of risk.

Ask yourself
Risk control involves executing the risk treatment strategy, monitoring trigger events, initiating contingency plans and watching for new risks.

ASK YOURSELF: What is the purpose of contingency planning? If a contingency occurs, how will you determine the appropriate risk treatment alternative?

Developing a communication plan
Communication is a key driver in project management. The coordination and tracking of project schedules, issues and action items depends on the flows of information between different stakeholders. The advantages flowing to a project manager from the development of a project communication plan are engagement with stakeholders due to the ongoing, purposeful flow of information. The power/interest grid developed during the stakeholder analysis (see Figure 13.4) provides valuable information about who needs what information, and when.

Planning and developing the communication plan requires completion of the following:
- Identify what information needs to be collected and when.
- Determine who will need the information and when.
- Decide how to collect, store and disseminate the information.
- Decide if there are restrictions on who has access to information.
- Determine time frames and reporting channels.
- Choose templates and version control method(s).
- Choose channels of communication appropriate to the communication purpose and stakeholder need(s).

Table 13.8 identifies the communication needs, preferred channel, format, when and responsibility in a communication plan for three stakeholders—the client or project sponsor, project team members and senior management. An effective project communication plan identifies the variety of stakeholders, their communication needs and a list of possible project documentation, such as meeting minutes and records of monitoring processes required over the project life cycle.

Table 13.8 - Sample communication plan

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Communication needs</th>
<th>Preferred channel</th>
<th>Format</th>
<th>When</th>
<th>Person responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client (Sponsor)</td>
<td>Status reporting— schedule, budget, variances, issues</td>
<td>Email and hard copy</td>
<td>Progress report—one page summary including table for scope status and issues and spreadsheet for schedule and budget status</td>
<td>Fortnightly following project team meeting</td>
<td>Project manager</td>
</tr>
<tr>
<td>Project team members</td>
<td>Assigning and tracking tasks</td>
<td>Online shared workspace</td>
<td>Schedules, task lists, specifications Gantt charts Group calendars</td>
<td>Ongoing</td>
<td>Project manager and team members</td>
</tr>
<tr>
<td>Senior management</td>
<td>Communicating progress of project</td>
<td>Email and hard copy</td>
<td>Milestone report</td>
<td>Bi-monthly</td>
<td>Project manager</td>
</tr>
</tbody>
</table>
Established methods of communication such as written progress reports, email, interaction via social media, meetings, team briefings, problem-solving groups and face-to-face discussion are essential. Effective communication promotes teamwork and enables the project team to monitor progress, receive early warning of problems and acknowledge achievement of milestones.

An effective communication plan defines who will carry out the planned communication activities, coordinate and follow up to verify that activities have been implemented in the way foreseen in the communication plan, and identifies activity and result indicators.

Apply your knowledge

1 a) For the fitout of a floor of a new building you scoped in question 2 of the Apply your knowledge on page 361, develop the project plan including:
   • a work breakdown structure
   • a project schedule
   • a contingency plan
   • a communication plan.

b) Identify strategies you could use to:
   • consult with project team members
   • provide support to project team members
   • involve project team members in the project review process
   • reassign project members on project completion.

2 Write a short information report. In your report:
   • list the major groupings found in a WBS
   • identify the features of a work package
   • discuss the purpose of a PERT schedule
   • discuss how to establish the time, cost and quality standards of performance.

3 a) Explain the relationship between the work breakdown structure and project scheduling.
   b) How is the critical path determined?
   c) Why should project managers consider the critical path in the planning phase?

4 Work in small groups.
   a) Discuss how to identify and anticipate potential sources of risk.
   b) Brainstorm the kinds of risks that may occur in projects.
   c) Develop a list of strategies for mitigating project risk.

5 a) What is the purpose of a project budget?
   a) From whom would you seek approval for a project budget in your work area?
   b) What are the advantages you gain by documenting the budget for a project?
   c) Create a list of common reasons for discrepancies between budget forecasts and actual financials.

13.3 Administer and monitor the project

Project management requires implementation of the project plan. It also requires controls that enable those administering and implementing the project to maintain task flow and stay on the critical path. ‘Staying on the critical path’ means the project is being managed according to the plan.

There are two dimensions to project implementation. The first is the technical dimension—planning, scheduling and controlling. The technical dimension includes stakeholder analysis, scoping project deliverables, developing the project plan, mitigating project risk, development of the WBS, resource allocation, reporting and other technical tasks. The technical dimension is the formal, logical part of the project management process.

The second dimension is the sociocultural side of project management. Larson and Gray (2011, pp. 15–16) explain:

In contrast to the orderly world of project planning, this dimension involves the much messier, often contradictory and paradoxical world of implementation. It centers on creating a temporary social system within a larger organisational environment that combines the talents of a divergent set of professionals working to complete
Project managers must lead and manage the project team and other stakeholders across the range of project activities. They initiate contact with key stakeholders, reinforce project objectives, provide feedback and problem solve. They are able to adapt as circumstances change and build sustainable, cooperative relationships.

Project managers exercise leadership, facilitate teamwork and manage and control resources, costs and time. The people skills required in the implementation phase are as essential to the project’s success as those in the planning phase. Negotiation, conflict management, problem solving and meeting stakeholder expectations are all keys to successful implementation. (Refer to Chapters 5, 6 and 15 for more information.)

Effective communication is essential for maintaining the support, commitment and engagement of all stakeholders. Appropriate channels of communication include project meetings, formal presentations, informal discussions, project reports, project online shared workspaces and instant messaging. Communication builds and maintains relationships.

The temporary nature of a project and the interdependencies among different groups of stakeholders means the project manager must exercise personal power as well as positional and expertise power to influence stakeholders. Managing the relationships both within and around the project across a range of stakeholders such as project sponsors, top management, the project team, administrative support groups, contractors, government agencies and customers requires a project manager to exercise influence upwards, downwards and sideways.

The communication plan is enacted and used in project meetings to report on progress and keep other stakeholders informed and engaged. As well as keeping stakeholders informed, good, accurate and timely communication motivates and enhances an understanding of the project’s direction and status.
Monitor and control
The purpose of monitoring and controlling project work is to maintain an efficient and effective workflow over the project life cycle. Monitoring and control processes measure performance against the project baseline. Time performance is measured against the critical path; actual costs are measured against the budget. Periodic monitoring of planned against actual performance holds people accountable and prevents small problems from escalating into large problems.

Effective monitoring and control ensures the project activities conform to the benchmarks and performance standards defined in the project scope statement and in the project plan (WBS, network schedule and budget). Control of cost, schedule and specifications throughout project execution and follow-up activities ensures performance and outcomes adhere to the predefined standards, target values, activity and result indicators.

During monitoring project managers pay particular attention to costs, time and budget. Six examples of loose per cent complete rules used in measuring project progress are shown in Table 13.9.

<table>
<thead>
<tr>
<th>Rule</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/100</td>
<td>Measurement only happens and is recorded after the project is fully completed</td>
</tr>
<tr>
<td>Milestone</td>
<td>Measurement and monitoring happens when the control point or milestone is reached</td>
</tr>
<tr>
<td>Standard dollar expenses</td>
<td>The percentage of costs (say 20%) are assigned to an equal percentage of time interval (say 20% of project life)</td>
</tr>
<tr>
<td>50/50 rule</td>
<td>Records half the achievement for each task when the work is scheduled to begin and the other half when the schedule is completed</td>
</tr>
<tr>
<td>Equivalent units</td>
<td>Measures achievement against number of completed project tasks</td>
</tr>
<tr>
<td>Level of effort</td>
<td>Measures the resources used over a given period of time</td>
</tr>
</tbody>
</table>

Performance is measured to compare what is happening with what should be happening and to take corrective actions to correct any deviations from performance measures and standards. The project manager and members of the project collect predefined project performance data identified in the project plan.

The project manager monitors responsibilities and the carrying out of the planned activities in the way foreseen in the WBS and network schedule. A contingency response is implemented when control information gathered through observation, discussions, meetings and analytical tools identifies variances from planned progress. A risk response is initiated when any variance reaches an identified level of tolerance. Responsibility for treatment of the risk lies with the risk’s owner, as set out in the project risk register.

Records and reports
Clear and concise records confirm the activities undertaken across the four phases—definition, planning, execution and closing—of a project. The records show achievements against project scope, schedules, critical paths, milestones and deliverables.

Records substantiate claimed expenditure for the project activities to which the expenditure relates. For example, claims for salary, materials and other costs must be supported by documentation. A record of transactions enables them to be traced and verified through the project’s or organisation’s accounting or finance system.

A good project record-keeping system will detail project performance, achievements, expenditure and outcomes in accordance with organisational and legal requirements. The records enable the verification and timing of expenditure and establish that the amounts claimed are directly attributable to particular activities and deliverables.

Project reports
Project reports should convey complete, accurate, concise and objective information to stakeholders. Data should be collected and actual activity duration times, resource usage, rates and costs compared against planned times, resources, budgets and quality specifications. The purpose of four types of project reporting is shown in Table 13.10.
### Table 13.10 > Types of project report

<table>
<thead>
<tr>
<th>Type</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal progress reports of what has happened, how, when and by whom</td>
<td>Convey information (often in short report format) about:</td>
</tr>
<tr>
<td></td>
<td>• project commencement—on time, behind or ahead of time against task schedules and milestones</td>
</tr>
<tr>
<td></td>
<td>• progress against schedule and milestones</td>
</tr>
<tr>
<td></td>
<td>• actual financial performance against budget and cash flow forecasts in project plans</td>
</tr>
<tr>
<td></td>
<td>• conformance of project outcomes with project specifications</td>
</tr>
<tr>
<td></td>
<td>• work-in-progress conformance with resource allocations in project plans</td>
</tr>
<tr>
<td></td>
<td>• completion of deliverables—on time, behind or ahead of time against task schedules and milestones</td>
</tr>
<tr>
<td>Status reports are required at regular intervals throughout a project</td>
<td>Convey information about conformance to specifications, resource availability and budget at status date.</td>
</tr>
<tr>
<td></td>
<td>Summarise (often in table format) the:</td>
</tr>
<tr>
<td></td>
<td>• schedule—activity, work completed, approved milestone date, revised date(s) and current estimated completion date</td>
</tr>
<tr>
<td></td>
<td>• activity—budgeted cost, revised actual cost</td>
</tr>
<tr>
<td></td>
<td>• budget—original approved budget, authorised changes and current estimated budget</td>
</tr>
<tr>
<td></td>
<td>• issues or risks that have resulted in approved changes to scope, budget, quality or functionality and who is responsible for implementing corrections</td>
</tr>
<tr>
<td>Variance request is a formal process that documents changes to scope, time, cost or quality</td>
<td>Identifies (often in table format):</td>
</tr>
<tr>
<td></td>
<td>• item of scope affected</td>
</tr>
<tr>
<td></td>
<td>• requested change and reason for change</td>
</tr>
<tr>
<td></td>
<td>• impact on scope, budget and schedule</td>
</tr>
<tr>
<td>A completion report evaluates a project’s outcomes for the benefit of subsequent projects</td>
<td>Provides a brief background and a short description of a project’s performance—what happened, what was learned, what went well and did not go so well. Refer to Figure 13.11, page 377, for the components in a completion report</td>
</tr>
</tbody>
</table>

### Ask yourself

Project reports and records fulfil legal and accountability responsibilities, maintain historical records of a project’s activities and provide lessons for future projects.

**ASK YOURSELF:** What sort of information would you require before approving a claim for expenditure on a project work package? What problems are likely to arise if an expenditure claim is not supported with appropriate evidence?

### 13.4 Finalise and review the project

Three essential components of the project closure are wrap-up, evaluation and lessons learnt. Wrap-up involves closing accounts, paying bills, reassigning people and equipment, closing facilities and the final report. Evaluation involves a review of performance against the project’s predefined standards, target values and activity indicators. Lessons learnt—successes and failures—are captured in reviews conducted by either an independent facilitator or the project manager with the project team. Lessons learnt inform future projects. A final report is prepared to document the progress through the project, its achievements and final outcomes.

Closure of the project is communicated to the project team and other project stakeholders. They must also be informed of follow-on activities such as assignment to a new project or reassignment to previous duties. By providing recognition of achievements and initial and ongoing support and guidance as the project team members are assigned to new projects or roles, the project manager will reduce the risk of the project member becoming demotivated and disengaged from the organisation.
Formal closure should be recorded in writing. Always gain sign-off from the client. Some of the typical items to include in a written formal closure are:

- a completion checklist
- an agreement that the project conforms with the specifications
- an agreement that the project meets the terms of reference and fulfils the scope
- an agreement for final payment and client sign-off.

At the close-out stage provide the client with completion certificates, warranties (if any), maintenance contracts and operational documentation.

The contract and other relevant documentation such as progress reports, status reports, financial records, invoices and payment records are stored in the project file.

**Review project**

Review meetings provide the opportunity for project stakeholders to voice issues or seek clarification on budgets, schedules, objectives and milestones. Guidelines for encouraging participation in project review meetings include:

- setting aside a fixed time and schedule for meetings with the project stakeholders, and keeping the commitment
- setting guidelines for expected response times from project team members
- ensuring that you respond to emails and voice mail messages promptly
- using available technology such as instant messaging and the telephone to get immediate feedback
- replacing or augmenting traditional noticeboards with intranets and shared online workspaces to keep project team involved
- conducting regular status reports to make formal objective review of achievements across project activities and time lines more effective
- ensuring emails, online and written communication is clear, concise and complete.

**Lessons learnt**

Learning about what went well and not so well over the project life cycle requires facts and information to uncover the causes of failures and successes. Projects are evaluated according to accomplishment, cost and time spent.

Positive and negative lessons are learnt from evaluation of the following aspects of a project:

- quality of initial project definition—scope, stakeholder analysis and identification of deliverables
- accuracy of project plans, budget and schedules
- appropriateness of interventions to manage change
- problem solving—timing, diagnosis of causes and implementation of corrective action
- communication within team and with other stakeholders
- teamwork—sharing knowledge and skills, commitment to team processes and success
- performance against schedule, resource use, budget and quality of deliverables
- control of uncertainty and response to risk
- factors underpinning accomplishments or causing problems
- quality of documentation—adequate, informative, clear, complete and easy to access.

Typical barriers to implementing the lessons learned are lack of time, inadequate reporting, people blaming one another and an unwillingness to accept constructive feedback. Lessons learnt should be shared across the organisation to help in the planning and implementation of other projects.

**Project review report**

The project review assesses the success of the project and informs future projects. The report documents how well the project fulfilled its objectives by comparing the project outcomes against the original project definition and plan. The level of detail provided will depend on the project and the organisation or project sponsor’s requirements.

Figure 13.11 identifies the typical sections of a project review report.
Apply your knowledge

1. Monitoring and control ensures the project activities conform to the benchmarks and performance standards identified in the project scope and plan.
   a) Develop a list of controls used to manage a project and explain how controls help the project manager and project team members.
   b) Identify three factors project managers must pay particular attention to as they monitor a project.
   c) Identify two variances from planned progress that would initiate a risk response.
   d) Where would treatment of the risk be recorded?

2. Write a short description of:
   • the technical dimension and sociocultural dimension of project implementation
   • how knowledge of the two dimensions helps a project manager build a cooperative social network among stakeholders
   • the types of power exercised by a project manager.

3. For your project—fit out a floor of a new building as office space:
   a) describe and explain the reports you would prepare over the life of the project.
   b) prepare a document for completion and sign-off of the project.

4. Imagine you are holding a start-of-project information session for staff. In your presentation:
   • Explain what risk management is about, and why it is essential for the project.
   • Discuss at what point should a risk response be initiated.
   • How would you respond to this question from one of the staff: ‘Would you be happy to change a project objective if a risk threatened it?’
   • Explain the reasons for gaining agreement from stakeholders to change an objective because of a risk threat.
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5. Create a checklist of the activities you should complete in the handover or completion stage of the project. Next time you participate in a project use the checklist to verify each of the activities has been completed.

6. a) Briefly discuss three benefits gained from identifying responsibilities and providing assistance when assigning project staff to new roles.
   b) Why should you report and close the project formally?

7. a) What are the benefits of having an independent facilitator lead a review meeting?
   b) Develop a list of guidelines for encouraging participation in review meetings.

8. Lessons learnt are an analysis of what worked and what did not work.
   a) Identify at least three aspects of a project you would review.
   b) Lessons learnt and passed on to future projects are ‘worth their weight in gold’. Identify typical barriers to implementing the lessons learnt in future projects.
   c) Choose one of these barriers and suggest how to overcome the barrier.

KEY TERMS

<table>
<thead>
<tr>
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<th>project plan 361</th>
</tr>
</thead>
<tbody>
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<td>risk 369</td>
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<tr>
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<td>critical path method (CPM) 364</td>
<td>risk management 369</td>
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<td>work package 362</td>
</tr>
</tbody>
</table>

SUMMARY

**LO 13.1** Discuss the value of careful project scope and stakeholder definition.
Scope definition identifies the project scope, stakeholders, the limit of the project manager’s responsibilities, reporting requirements, the relationship of the project to other projects, and the availability of resources. Clear scope definition, stakeholder analysis and project documentation enhances understanding by all stakeholders of their roles, responsibilities and project start and end dates.

**LO 13.2** Develop project plans to determine what a project will entail, when it will be scheduled, who will be involved, what quality level will be maintained and what the budget will be.
Effective project planning clearly defines the project, determines the work breakdown structure, develops the project network schedule, identifies resources, develops a budget, identifies risk and creates a project communication plan. Good planning enables the person(s) approving the project and those undertaking the work to understand the planned approach to each phase of the project life cycle.

**LO 13.3** Outline the steps to administering and monitoring a project effectively.
Project managers must initiate contact, collaborate, facilitate teamwork and adapt to changing circumstances. They communicate responsibilities and project requirements in face-to-face contact, written reports and records.

Sample only
They implement and monitor plans and controls for managing finances, resources and quality. Controls facilitate work in accordance with the overall project plan and assure deliverables meet expectations.

**LO 13.4** Explain the importance of finalising deliverables and reviewing project processes, outcomes and lessons learnt from the project.

The closing phase of a project confirms completion of the deliverables and transfer of them to the project sponsor. Closure-related activities and deliverables such as review, lessons learnt, completion report and training must be finalised before a project is deemed closed. A project is complete after all project plan activities are completed, consistent with established success criteria, approved and accepted to the satisfaction of the project sponsor.

### REVIEW QUESTIONS

1. List the major phases of project life cycle.
2. a) Why is it necessary to identify all stakeholders in the project definition stage?
   b) Detail three steps to follow as you analyse project stakeholders.
   c) What are the benefits of stakeholder analysis?
3. Explain how determination of guidelines and explicit boundaries at the beginning of a project can minimise and/or resolve issues over the project life cycle.
4. List the elements in a project plan.
5. a) How does a work breakdown structure aid a project manager?
   b) What is a work package?
6. a) What is the purpose of network scheduling?
   b) Differentiate predecessor, successor and concurrent activities.
7. What is the purpose of a PERT chart?
8. What is the purpose of the critical path method?
9. What are the benefits of using Gantt or milestone charts in project scheduling?
10. Define the term ‘project baseline’ and briefly explain its purpose.
12. a) Identify three types of project costs.
    b) Identify typical reasons for discrepancies between budgeted forecasts and actual costs.
13. Compare the benefits of top-down and bottom-up approaches to estimating.
14. Identify two types of resource allocation.
15. a) What types of risks are identified in a risk breakdown structure?
    b) Identify five alternative ways of treating risk.
    c) Why should a risk register be included in a project plan?
16. Why is the communication plan a key component of the project plan?
17. Distinguish the technical and sociocultural dimensions involved in the execution of projects.
18. a) What factors must project managers pay particular attention to when monitoring a project?
    b) What advantages does a project manager gain from defining reporting requirements and maintaining records consistently throughout a project?
    c) Differentiate four types of project reports.
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19 a) What are project outcomes reviewed against?
   b) What are the reasons for documenting and reporting lessons learnt in the review process?
   c) Why is involvement of the project team members and other key stakeholders a key component of the project review process?

20 Identify typical sections in a project review report.

WORKING TOGETHER

Work in small groups.

1 Briefly discuss the factors that enable you to administer and monitor a project effectively.

2 Brainstorm a range of strategies you can use to communicate with and support project team members.

3 Explain why project standards and benchmarks are established and why project performance, achievements and outcomes must be recorded.

4 Develop a briefing paper titled ‘Managing project risk’ for members of a project team. In the briefing paper:
   • define and give examples of risk to a project
   • explain the purpose of the risk breakdown structure
   • outline the contingency planning process
   • explain the reasons for keeping a risk register.

EXPLORING THE WEB

1 Assess your project management skills by visiting the Mind Tools website at www.mindtools.com/pages/article/newPPM_60.htm and complete the quiz ‘How Good Are Your Project Management Skills?’.

   b) Develop an agenda for a meeting of the project team and other relevant stakeholders. The purpose of the meeting is to capture and report lessons learnt across the project’s life cycle.

CASE STUDY 1: SCHEDULE INPUTS

Bernard has been appointed manager of his company’s new project, ‘Designing a social media marketing campaign.’ Six people have been assigned to the team. Two of the team work flexibly—two days in the company office and three days of e-work from their home office.

Bernard has completed the project definition phase and is now scheduling the project’s inputs. As he plans the project schedule he realises he must:
   ■ access personal and project calendars to understand working days, shifts and resource availability
   ■ refer to the project scope to determine key start and end dates, stakeholder expectations and any constraints and restrictions
   ■ understand the WBS and work packages before he can determine major milestones
   ■ identify risks to allocate contingency time to deal with uncertainties
   ■ understand resource requirements, available capabilities, experience and constraints, such as public holidays and vacations, when developing the schedule.
Bernard is aware he must discuss and consult the scheduling with the team members. He knows the team is busy and does not want to overwhelm them with emails. Instead he decides to complement regular meetings with face-to-face discussions on Skype and use instant messaging to deal with quick questions and answers. He also sets up an internal project blog for sharing ideas, information and feedback.

He has also established a web-based project management system for ongoing project administration and monitoring. The project team and stakeholders can check the project progress online. Team members can update their tasks online, so the project plan is always up to date. Everyone is aware of deadlines and resource availability issues can be addressed before they become major problems.

Questions

1. Critique Bernard’s approach to planning the project schedule. What, if anything, should he have done differently?
2. Evaluate the effectiveness of Bernard’s approach to project communication. What are the likely benefits or costs of the approach?

CASE STUDY 2: THE IMPORTANCE OF THE PROJECT REVIEW AND REPORT

Gemma, a project manager, will deliver a 10-minute presentation at the monthly meeting. The title is ‘The importance of reviewing a project and reporting lessons learnt’. The department head has requested she explain the reasons for reviewing against criteria and detailing lessons learnt.

The week before the meeting Gemma has Monday and Tuesday off work sick. On her return she is busy ‘catching up’ but realises she has to deliver her presentation the next day. As Gemma has little time to prepare her presentation, she decides to speak using the outline from a previous presentation on project planning. This outline provides a summary about what a project is trying to achieve, a detailed project description of what, why, when and how of the project, task summaries, and detailed task outlines of task, dates, responsibilities, milestones, checkpoints and the priority (high, medium or low) of each action.

After the meeting Gemma’s department head suggests her presentation ‘missed the point’ because it did not cover the importance of reviewing the project and reporting lessons learnt.

Questions

Drawing upon the theory you have read about and considered in this chapter, develop an outline Gemma could have used for her presentation.

BIBLIOGRAPHY


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