Every purchase of a Facet book helps to fund CILIP’s advocacy, awareness and accreditation programmes for information professionals.
The No-Nonsense Guide to Project Management

Barbara Allan
## Contents

List of tables and figures ix

List of case studies xiii

Acknowledgements xv

1 Introduction to the book 1
   Introduction to the chapter 1
   About this book 1
   Introduction to project management 2
   Different types of projects 3
   Project work and the library and information profession 5
   Professional development in project management 9
   Working as an effective project manager or team member 11
   The structure of this book 16
   References 19

2 An overview of project management 21
   Introduction 21
   A brief history of project management 22
   The traditional approach to project management 24
   PRINCE2® 32
   Agile 38
   Selecting an approach to project management 41
   The people side of projects 41
   Summary 46
   References 46

3 Getting started 49
   Introduction 49
Project initiation 49
Defining the project 53
Project stakeholders 54
Project leadership and management structures 58
Project team work 59
Project communications 62
Risk analysis and management 62
Legal issues 66
Project documentation 67
Project finances 67
Producing a project brief 68
Obtaining the go-ahead 69
Summary 69
References 70

4 Planning the project 71
Introduction 71
Researching the project 71
Developing the project infrastructure 72
Producing and agreeing a schedule 73
Analysing the tasks 74
Staffing the project 81
Presenting a detailed plan 83
Communicating a plan 86
How will the tasks be carried out? 86
Working out the finances 87
Carrying out a detailed risk analysis 87
Designing the project evaluation process 87
Documenting the project 87
Reporting progress 88
Developing a project communication strategy and plan 89
Future-proofing a project 90
Bringing it all together 91
Communicating the project plan 93
Gaining approval for the project plan 94
Summary 94
References 94

5 Implementation 97
Introduction 97
Implementing the project plan 97
Reporting the project progress 101
Identifying and managing problems and potential problems 101
Reviewing the project process 107
Completing the project 107
Summary 109
References 109

6 Evaluation and dissemination 111
Introduction 111
Project evaluation 111
Who will lead the evaluation? 112
Approaches to evaluation 114
Measuring the impact of the project 118
Project dissemination 121
Summary 134
References 135

7 Using ICT to support project work 137
Introduction 137
Everyday ICT tools 137
Project management software 140
Collaborative tools 145
Social media 146
Summary 153
References 153

8 The money side of projects 155
Introduction 155
Current approaches to funding 155
External funding organisations 155
Working in partnership 157
Technical terms 157
Bidding and tendering for projects 162
Crowdfunding 170
Managing the finances 171
Being prepared and taking part in audits 173
Summary 174
References and further reading 174

9 The people side of projects 175
Introduction 175
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamental requirements for project workers</td>
<td>175</td>
</tr>
<tr>
<td>Developing working practices</td>
<td>177</td>
</tr>
<tr>
<td>Working with diverse teams</td>
<td>181</td>
</tr>
<tr>
<td>Working with virtual teams</td>
<td>184</td>
</tr>
<tr>
<td>Working with volunteers</td>
<td>187</td>
</tr>
<tr>
<td>Crowdsourcing</td>
<td>189</td>
</tr>
<tr>
<td>Managing change</td>
<td>192</td>
</tr>
<tr>
<td>Summary</td>
<td>197</td>
</tr>
<tr>
<td>References</td>
<td>197</td>
</tr>
</tbody>
</table>

10 Working in partnership 199

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>199</td>
</tr>
<tr>
<td>Benefits of working in partnership</td>
<td>199</td>
</tr>
<tr>
<td>The process of working in partnership</td>
<td>200</td>
</tr>
<tr>
<td>Keeping the project together</td>
<td>203</td>
</tr>
<tr>
<td>Case studies</td>
<td>204</td>
</tr>
<tr>
<td>Summary</td>
<td>214</td>
</tr>
<tr>
<td>References</td>
<td>214</td>
</tr>
</tbody>
</table>

Index 217
List of tables and figures

Tables

1.1 Comparison of the characteristics of simple and complex projects 6
1.2 The roles of the different people working on a project 8
1.3 Good habits of time management 13
2.1 Introduction of family history workshops 26
2.2 Typical activities commonly undertaken during the different stages of a PRINCE2® project 33
2.3 The Agile process 39
2.4 Criteria for choosing an approach to project management 42
3.1 A brief project summary 54
3.2 Project stakeholders and their types of interaction with a project 56
3.3 Typical characteristics of the project groups that manage large-scale or complex projects 60
3.4 Different types of team work 60
3.5 Assessing the likely impact of different levels of risk on a project 64
3.6 Assessing the risks for a project to develop a new induction process in a law library 65
5.1 The level of detail, frequency and type of communication used for weekly feedback reports on a project’s progress, by stakeholder 101
6.1 Advantages and disadvantages of different evaluators leading an evaluation process 113
6.2 Advantages and disadvantages of different project evaluation tools 117
6.3 Ways of measuring different impacts of a project 119
6.4 Selecting social media 127
6.5 Ways of managing challenging situations 133
x THE NO-NONSENSE GUIDE TO PROJECT MANAGEMENT

7.1 Everyday ICT tools for managing simple projects 138
7.2 Advantages and disadvantages of using project management software 140
7.3 Factors to consider when selecting project management software 141
7.4 Software packages for different approaches to project management 142
7.5 Collaborative tools for different functions 146
8.1 Examples of funding organisations 156
9.1 Responsibilities of team members and project managers 178
10.1 Types of project glue 203

Figures
1.1 Is it a project? 3
1.2 Sample structure of a project learning diary 15
2.1 Three themes of project management 21
2.2 The project life cycle 24
2.3 Diagram showing the project leadership and management structure 34
2.4 Example project stage made up of three work packages 34
2.5 Example project work package made up of five distinct activities 35
2.6 The structure of Learning Futures 37
3.1 The management structure of a project 59
4.1 The overall structure of a project 73
4.2 Example format of a sticky note used to record details of a task, and example of a completed sticky note 77
4.3 The finish-to-start relationship 78
4.4 Example of sequential tasks 78
4.5 Example of concurrent tasks 78
4.6 Example of a critical path 79
4.7 Example of an action plan 83
4.8 Example of a Gantt chart 84
4.9 Example of a PERT diagram 85
4.10 Example of a PERT chart produced using SmartDraw® 85
5.1 Example of a weekly progress report form 100
6.1 Simple questions to evaluate a project 114
7.1 Results of a brainstorming session 138
7.2 Spreadsheet showing plan for a library move 139
LIST OF TABLES AND FIGURES

7.3 Example of using SmartDraw® to list tasks for an e-learning project 143
7.4 Example list of assignments created using SmartDraw® 144
7.5 Example of a project timeline produced using SmartDraw® 144
8.1 Summary of the bidding process 163
8.2 Common project costs 166
8.3 Example project budget for a digital skills project 167
8.4 Example project budget showing estimated expenditure for a digital skills project 168
8.5 Example spreadsheet showing actual costs and variance for a digital skills project 172
9.1 The change cycle 193
9.2 Strategies to manage and support people through change 196
List of case studies

1.1 Developing knowledge and skills in project management 10
2.1 Family history workshops 25
2.2 Project management and the CILIP virtual learning environment 27
2.3 Organising your first conference 29
2.4 Project management: a view from a trainer and consultant 30
2.5 Learning Futures 35
2.6 Mobile website 39
2.7 Development of a virtual research environment 40
3.1 Developing adaptable, efficient mobile library services: librarians as enablers 51
3.2 Building a new library 55
3.3 Introducing an online reading list system in an academic library 57
3.4 Identifying working practices in a cataloguing project 61
3.5 Working out the risks for a project to develop a new library induction process in a law firm 64
3.6 Health and safety during a library move 66
4.1 Developing a student learning resource on plagiarism 75
4.2 A weeding project 80
4.3 Developing an online resource: estimating staff time 82
4.4 Early stages of organising a conference 84
4.5 Moving a library 86
4.6 A collaborative approach to develop a new library system 93
4.7 Preventing information overload 94
5.1 Installation of new computers 100
5.2 An infestation of fleas 103
5.3 Moving a library 103
5.4 Assessing quality in a collaborative cataloguing project 105
5.5 The potential unravelling of an information literacy programme 106
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Living Voices</td>
<td>120</td>
</tr>
<tr>
<td>6.2</td>
<td>Baltimore Elementary and Middle School Library Project</td>
<td>123</td>
</tr>
<tr>
<td>6.3</td>
<td>A University of Salford development project</td>
<td>125</td>
</tr>
<tr>
<td>6.4</td>
<td>Baltimore Elementary and Middle School Library Project Part 2</td>
<td>126</td>
</tr>
<tr>
<td>6.5</td>
<td>Family history day</td>
<td>129</td>
</tr>
<tr>
<td>7.1</td>
<td>Managing a library move</td>
<td>138</td>
</tr>
<tr>
<td>7.2</td>
<td>Using social media to build a community</td>
<td>148</td>
</tr>
<tr>
<td>7.3</td>
<td>Calculating value: a digital library's social media campaign</td>
<td>150</td>
</tr>
<tr>
<td>7.4</td>
<td>Social technologies in public libraries in Australia</td>
<td>151</td>
</tr>
<tr>
<td>7.5</td>
<td>Personal reflection on the use of ICT to support a project by a librarian working in the voluntary sector</td>
<td>152</td>
</tr>
<tr>
<td>7.6</td>
<td>Calculating value: a digital library's social media campaign</td>
<td>150</td>
</tr>
<tr>
<td>8.1</td>
<td>The introduction of a nine-foot tall Incredible Hulk statue in a public library</td>
<td>170</td>
</tr>
<tr>
<td>9.1</td>
<td>An isolated project worker</td>
<td>176</td>
</tr>
<tr>
<td>9.2</td>
<td>Hot desking</td>
<td>176</td>
</tr>
<tr>
<td>9.3</td>
<td>Collaborative project with members in the UK and China</td>
<td>185</td>
</tr>
<tr>
<td>9.4</td>
<td>Collaborative project with members in England and Saudi Arabia</td>
<td>185</td>
</tr>
<tr>
<td>9.5</td>
<td>Hull City of Culture 2017</td>
<td>188</td>
</tr>
<tr>
<td>9.6</td>
<td>Crowdsourcing at the British Library</td>
<td>190</td>
</tr>
<tr>
<td>9.7</td>
<td>Trove at the National Library of Australia</td>
<td>191</td>
</tr>
<tr>
<td>9.8</td>
<td>Merging two services</td>
<td>192</td>
</tr>
<tr>
<td>9.9</td>
<td>Changes to working practices</td>
<td>194</td>
</tr>
<tr>
<td>9.10</td>
<td>The impact of a company merger</td>
<td>195</td>
</tr>
<tr>
<td>10.1</td>
<td>Shared services</td>
<td>204</td>
</tr>
<tr>
<td>10.2</td>
<td>Collaboration in rural Texas, USA</td>
<td>205</td>
</tr>
<tr>
<td>10.3</td>
<td>Collaborating to use iPads as a therapeutic resource</td>
<td>206</td>
</tr>
<tr>
<td>10.4</td>
<td>Delivering an online information literacy programme</td>
<td>208</td>
</tr>
<tr>
<td>10.5</td>
<td>Utah Accessible Tutorials: creating a collaborative project between a public and academic library</td>
<td>210</td>
</tr>
<tr>
<td>10.6</td>
<td>Establishing campus and community collaboration to host William Shakespeare's first folio at Kansas State University</td>
<td>211</td>
</tr>
<tr>
<td>10.7</td>
<td>Collaborative partnership between three Australian universities</td>
<td>211</td>
</tr>
</tbody>
</table>
I would like to thank all the library and information workers who have had an input to this book. This may have been through their participation in my workshops delivered at the Chartered Institute of Library and Information Professionals (CILIP) and other organisations, or through their publications, websites and blogs, or in informal discussions. Special thanks to Ann Munn and Fiona O’Brien of the University of Westminster, Juanita Foster-Jones, CILIP, and Lisa Jeskins, an independent trainer, who provided me with detailed case studies on their current experiences of project management. Thank you to everyone who was involved in the Learning Futures programme at the University of Westminster between 2012 and 2015, and in particular to the professional project management team who provided inspiration for some of the ideas and examples of project management practices which are contained in this book.

An earlier book of mine, Project Management: Tools and Techniques for Today’s ILS Professional (Facet Publishing, 2004) informed this one. A number of my personal examples are repeated in this book as I was unable to find suitable examples which made the same point. Writing this book has been an interesting learning experience as there has been a shift in the use of information and communications technology (ICT) to support project management. There are now many examples of project management software available to library and information workers, and social media has transformed the communications process. Crowdfunding and crowdsourcing are now important sources of resources (funding, volunteers, archives), which are used to develop and maintain some projects. This book attempts to capture the current situation in project management in libraries and information services, and I imagine that it will continue to change and develop, particularly in response to developments in ICT and their applications.
Finally, thank you to Denis and Sarah, who have been patient and supportive during my time working on this book.

Barbara Allan
CHAPTER 4

Planning the project

Introduction
This chapter introduces the planning process and highlights the importance of detailed planning to successful project management. Project planning involves repeating some of the activities carried out at the previous stage in the project process, which resulted in the production of the project brief (Chapter 3). At the planning stage it is necessary to go into much more detail and work out the nuts and bolts of the project.

Small projects require an action plan with an associated plan to resource the project (people and finances) and undertake a risk analysis. Pull together this information with the original project brief (see Chapter 3) to create a project plan, which should provide sufficient information to gain approval for the plan and for the project to go ahead.

In large and complex projects Gantt charts and PERT diagrams (or equivalent tools) are required when creating a project plan, with the subsequent identification of the critical path (or their equivalent). The detail of the schedule helps you to calculate the workload of staff involved in the project and makes it possible to work out the detail of the project’s documentation and communication processes and finances. The detailed plan can be pulled together as a report for the project sponsor to approve.

Researching the project
When researching the project external and internal analyses of the project environment are required.

External analysis
These are some questions to ask when carrying out an external analysis of the project environment:
72 THE NO-NONSENSE GUIDE TO PROJECT MANAGEMENT

- What political, economic or social factors may have an impact on the project?
- What is the current practice within the library and information profession towards the project?
- What is the current practice within the sector, e.g. government, health, education, voluntary sector, towards the project?
- Who has been involved in this type of project? Can you contact them and ask for lessons learnt from their experiences?
- Is it possible to visit library and information services that have implemented this type of project and learn from their experiences?

Internal analysis
These are some questions to ask when carrying out an internal analysis of the project environment:

- What is currently happening within my organisation, e.g. major projects or change management initiatives, which may have an impact on the project?
- What is happening within the different departments in my organisation that may have an impact (positively or negatively) on the project?
- Who are the likely champions of the project?
- Who is likely to block the project?
- What systems and procedures within the organisation do I need to take into account when planning and implementing the project?

Developing the project infrastructure
Project managers identify the project infrastructure which will help support their project (see Chapter 3). For small-scale projects there will be a project team and the team leader will report to her manager or director. Large-scale and complex projects require a formal structure, which is likely to involve three groups: a steering group, a management group, and the project team. At this stage identify members of the project team, and for large-scale projects identify members of the three groups. Think about who will:

- contribute seniority and credibility
- provide access to resources, e.g. finance, space
• provide political and cultural know how and connections
• provide expertise, e.g. finance, human resource management
• act as gatekeeper – opening doors and helping to unblock issues
• represent different stakeholder groups
• carry out the project work.

Take time and advice before you finalise membership and send out invitations. If a key individual is missed off the original invitation list it could sour relations with that person for some time.

**Producing and agreeing a schedule**

A key task for any project manager is to develop the project schedule, which is a crucial document and provides the blueprint for the project. The schedule outlines all the tasks that need to be completed and the time frame, and it includes who will carry out the work. The starting point for developing the schedule is the project brief, so it is worth re-reading it and being very clear about the project aims and outcomes.

Developing a schedule for a small-scale project is a relatively simple task and can be completed using brainstorming techniques and a spreadsheet (see Chapters 2 and 7). The best starting point when working out the schedule for a large-scale project, so it does not seem too overwhelming, is to break it into stages and tasks, as illustrated in Figure 4.1. Each project is

![Figure 4.1 The overall structure of a project](image)

---

---
divided into a series of sub-projects (which may be carried out at the same time) and each stage is divided into a series of tasks. Each task is then divided into a series of activities.

**Analysing the tasks**

Analyse the work content of all types of project by listing:

- tasks with specific outcomes
- recurrent tasks
- milestones.

The specific outcomes of the project are best identified as SMART (specific, measurable, achievable, realistic and timebound). These objectives are:

- **specific** – describe a particular activity
- **measurable** – can be measured or identified when complete as there will be something tangible to see or hear
- **achievable** – can be achieved; you are not being asked to achieve an impossible task, e.g. one that involves a new invention
- **realistic** – can be achieved with the resources available and in the time required
- **timebound** – have a deadline or set amount of time given to the activity, e.g. an hour a week.

Example SMART outcomes when moving a library of 100,000 items over a three-month period are:

- to move 100,000 items from their old to their new location and to have every book in the correct location with catalogue amendments by 1 September 2018
- to inform readers on a weekly basis of the movement of stock involved in the move.

A simple and practical way of analysing work content is to ask team members to identify the specific tasks that have to take place for the project to be completed. Think about what level of detail to work at: if you work out the schedule at too detailed a level you may be overwhelmed with tasks; conversely if you produce very general tasks you may miss out
key areas that will need attention. The following case studies give some indication of the levels of detail used in different projects.

<table>
<thead>
<tr>
<th>Case study 4.1 Developing a student learning resource on plagiarism</th>
</tr>
</thead>
<tbody>
<tr>
<td>A college librarian working with the study skills tutor decided to establish an online learning resource on plagiarism aimed at students taking a range of courses in the health and social care department. They identified the following tasks:</td>
</tr>
<tr>
<td>• Produce sample questions and answers.</td>
</tr>
<tr>
<td>• Load questions into learning environment.</td>
</tr>
<tr>
<td>• Pilot sample questions (and answers).</td>
</tr>
<tr>
<td>They spent some time converting these outline tasks into SMART ones, and the initial list was as follows:</td>
</tr>
<tr>
<td>• Produce project brief and obtain approval for the project.</td>
</tr>
<tr>
<td>• Inform tutors of project and ask for their involvement via e-mail.</td>
</tr>
<tr>
<td>• Produce 20 sample questions and answers.</td>
</tr>
<tr>
<td>• Load questions into learning environment.</td>
</tr>
<tr>
<td>• Ask four colleagues to pilot questions and answers.</td>
</tr>
<tr>
<td>• Edit questions and answers in response to feedback.</td>
</tr>
<tr>
<td>• Load final version into the VLE.</td>
</tr>
<tr>
<td>• Launch initiative to colleagues and students.</td>
</tr>
<tr>
<td>This list had to be converted into a set of SMART deadlines by adding a deadline for each task. The librarian achieved this by working backwards from the start of term and the project launch, and then identifying the start and end date for each of these activities. This information was used to produce a project plan using project management software as discussed in Chapter 7. By using the project management software, the librarian and study skills tutor were able to check their project plan and the Gantt chart, check the timeline for the project, and know who was assigned to each task (see Chapter 7, figures 7.3, 7.4 and 7.5). This process of converting the outline tasks into SMART tasks enabled them to identify additional tasks that had to be carried out and have a very clear picture of the work necessary before the start of the new academic year.</td>
</tr>
</tbody>
</table>
Recurrent tasks
In addition to the specific tasks required to complete the project remember to consider the recurrent tasks repeated at regular intervals throughout the project, for example:

- holding regular project team meetings
- sending out a weekly project news bulletin
- updating the project spreadsheet
- updating the risk register.

These recurrent tasks are sometimes omitted at the project scheduling stage, which results in a serious underestimate of the amount of time that will be spent on the project.

Milestones
At this stage in the scheduling process, it is also worth thinking about and identifying milestones – significant landmarks in the life of a project. A milestone is not a task or an activity but a sign that a stage has been completed in the project. Examples of milestones include project start, project end, end of Phase 1, completion of staff training, and completion of installation of new hardware and software. Milestones provide important markers to the project manager and team as they may be used to signal to the stakeholders that the project is on course. Milestones can also be motivators for the project workers as they show them that their work has outcomes.

Estimating duration
Estimate how long each task takes. If you are completely new to the type of tasks included in your project schedule ask an experienced colleague (from your own or another library service) for help.

Recording your work
One approach to capturing all this information is to write the name of each task on a sticky note (see Figure 4.2). Give each task a number (starting with 1) as this will come in useful at a later stage. Different coloured sticky notes may be used to indicate the main tasks, recurrent tasks and milestones. I have used this technique in the initial scheduling meetings of library and information service projects and found that colleagues enjoy
using it and a whole range of tasks are identified very quickly.

Estimating staff hours to carry out a task
At a later stage in the project scheduling process you have to estimate the number of staff hours or days that someone will have to spend carrying out a task. It is worth highlighting the difference between these two time measurements:

- the duration is the amount of time that a task will take, normally measured in days, weeks or months
- the staff time or effort is the amount of time individuals will spend working on that task, e.g. two people for eight hours each, or four people for four hours each.

Working out the logical sequence of events.
The next step is to work out the order of tasks by showing the relationships or dependencies between the different tasks using this logic:

- \textit{Finish to start} – Task B can start when Task A is complete.
- \textit{Start to start} – Task B can start at the same time as Task C.
• **Finish to finish** – Task C must finish when Task B finishes.
• **Start to finish** – when Task B starts Task C must finish.

The finish-to-start relationship is the most common one that project managers deal with, where B cannot take place until A is completed (Figure 4.3).

![Figure 4.3](image)

**Figure 4.3** The finish-to-start relationship

If you are developing the project plan using sticky notes then the logic can be added by laying out all the sticky notes on a large piece of paper or whiteboard, and drawing in arrows to show the relationships between the tasks. If you are using project management software this result is achieved by linking tasks using task numbers. Whichever method you use, the end result is a logic diagram.

Remember to include milestones, all project schedules have at least two – start and end. Some tasks take place sequentially (Figure 4.4); others take place concurrently (Figure 4.5).

![Figure 4.4](image)

**Figure 4.4** Example of sequential tasks

![Figure 4.5](image)

**Figure 4.5** Example of concurrent tasks
Working out the critical path

The critical path of a project links the critical tasks – those tasks which if they are not completed on time result in the project not meeting its deadline. The critical path is illustrated in Figure 4.6 where tasks A, B, C and E each take five days to complete. Task D takes one day to complete. The whole project from Task A to Task E takes 20 days to complete. If the time taken to complete tasks A, B, C or E slips the whole project timetable will slip and the project will take longer than expected. Therefore tasks A, B, C and E are critical as indicated by their darker shading and the pathway that connects them is the critical path (if you are using project management software the critical path is normally illustrated in red). In contrast, if Task D takes between 1 and 10 days to complete the project will still be on time (as it will take ten days to complete tasks B and C).

One method of working out the critical path is to identify the start and end dates for the project, then work through the tasks from beginning to end and list the earliest start and finish dates for each task. Write these dates on the relevant sticky note (see Figure 4.2). Then work through the tasks noting the latest start and finish dates for each task. Again, note them on the relevant sticky note. The critical path is the set of activities where the earliest and latest finish dates are the same; their timing is crucial if the project is to remain on schedule. Any time slippage across the critical path has a major impact on the project.

In some project management software packages the critical path is automatically worked out; it is often displayed in red on the screen. This is useful information, as once you know which tasks form the critical path you will know where to put in additional effort if the project deadlines begin to slip.
Working out the workflow and process for a particular task

After working out the tasks and timeline of the project, the workflow within a particular task – the process for carrying out a specific task and detailed criteria for making decisions – must be identified. This is illustrated in the following case study.

**Case study 4.2 A weeding project**

Thomas and Shouse (2012) describe a large-scale weeding (deselection) project, introduced to make space for a new campus partner at the East Carolina University Joyner Library. They identify the workflow for package-based weeding as follows:

- Examine licence for post-cancellation rights.
- Search title lists for print holdings.
- Verify online coverage.
- Verify completeness of three sample volumes and evaluate quality of digital copy.
- If complete and adequate, withdraw all volumes in archive.
- If not complete or inadequate scan quality, consult librarian for decision to retain, or withdraw anyway.
- Move retained volumes to basement (unless currently received in print).
- Librarian decides if microfilms are to be retained.

They also describe the rules used to make decisions about the stock:

- withdraw:
  - bound volumes in archival packages
  - dead runs or incomplete runs no longer received in print, especially if the last volume is 1999 or earlier; there are fewer than ten volumes; they are not indexed; journals are no longer relevant for university curricula
- send to storage:
  - long runs of titles no longer received in print, especially if online access is available (from any provider), they have subject area importance or there is another local reason to retain them
  - poorly scanned or leftover volumes from titles in archival package (if greater than ten) if accessible online
- keep in stacks:
  - current print subscriptions
  - recent long runs (of 30 volumes or more) with no electronic access
  - items of subject area importance
  - items of significant value to local collections.
Staffing the project
At the planning stage of the project think about the people side of the work and how you will be able to staff the project:

- Who will be carrying out the work?
- Will you be working with permanent staff or contract staff?
- What specialist knowledge or skills do they require?
- How much time will it take them to carry out their project work?

Think about how much time each person will have to spend on the project. Are they going to have enough time to complete their project work? How will this fit into their everyday workload?

When you allocate tasks within a team, the work may be shared out according to personal interests, job role, experience or expertise, available time or personal development needs. Individuals may volunteer for particular tasks or activities, or may be asked if they would like to take responsibility for particular tasks. It is important to identify constructive solutions when there are difficulties in agreeing responsibilities. If the team cannot agree responsibilities it may be worth noting preferences, conflicts of preference and constructive solutions.

When library and information workers are assigned to a project their assignation is often temporary and the project work may run alongside their main job role. Carroll (2000) advises that if project workers are spending less than 50% of their time on their project work they may have difficulty in prioritising the project work over their other work. In reality many library and information workers spend less than 50% of their time on project work so need to be effective time managers if they are to complete their project work. This issue is considered in more depth in Chapter 1.

It is useful to estimate the amount of staff time required for a project. You can do this for a complex project using a simple equation (found in most standard project management books). First give pessimistic, average
and optimistic estimates of the time it will take to complete a task. Then use this equation to work out the amount of staff time you need:

\[
\text{time (estimated)} = \frac{\text{time (pessimistic)} + 4 \times \text{time (average)} + \text{time (optimistic)}}{6}
\]

Case study 4.3 Developing an online resource: estimating staff time

A community college is developing an online study skills resource. The project manager is estimating the time it will take one person to upload ten online quizzes onto the college’s VLE. She estimates the following times:

- most pessimistic time = 12 hours
- average time = 5 hours
- most optimistic time = 3 hours.

What is the likely time this activity will take?

\[
\text{time (likely)} = \frac{(12 + (4\times5) + 3)}{6}
\]

The answer is approximately 5.8 hours.

At the planning stage, using this estimate, the project manager rounded the figure up and input 6 hours for the completion of this task into the project plan. Once the project was implemented, she found that the actual task took 3 hours to complete. This difference in time between the planned and the actual time caused no problems at all. However, if the task had taken 12 hours and the project plan had included an estimate of only 6 hours it may have caused some problems.

One of the practical dangers of using this type of equation is that it can give the impression of accuracy. In fact the estimate is only as good as the assessment of the optimistic, pessimistic and average times used in the equation. In practice, project managers and teams can improve the accuracy of this process by:

- asking a range of staff for an input into the estimates
- measuring the amount of time it actually takes someone to complete the task
- contacting professional colleagues who have been involved in similar tasks and asking them for their estimates.
It is also necessary to work out how many days per month (or year) that someone is able to work on the project by identifying the number of days they work per year and subtracting days for training, weekends, annual leave, statutory days and sick days as follows:

\[
\text{Working days} = \text{Days in year} - (\text{annual leave} + \text{weekends} + \text{training per year} + \text{statutory days} + \text{sick days})
\]

\[
= 365 - (20 + 104 + 4 + 11 + 5) \text{ days}
\]

\[
= 221 \text{ days per annum}
\]

So as a rough rule of thumb, someone who is working on a project full time will be available for approximately 221 days’ work per year and someone who is spending 50% of their work time on the project will be available for 115.5 days per year. It is important to allocate people on the basis of their actual working days per year otherwise you will seriously underestimate the staffing input required for the project.

**Presenting a detailed plan**

You will need to present your detailed plan for discussion and approval to the project team, management group and (possibly) the steering committee. There are three main methods of presenting the project plan:

- using action plans
- using Gantt charts
- using PERT diagrams.

**Action plans**

In simple projects the whole project plan can be illustrated with an action plan that shows who does what and the timescale (see Figure 4.7).

<table>
<thead>
<tr>
<th>Task</th>
<th>Person responsible</th>
<th>Start date</th>
<th>End date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book conference facilities</td>
<td>Jane</td>
<td>6 January</td>
<td>15 January</td>
</tr>
<tr>
<td>Book speakers</td>
<td>Chris</td>
<td>16 January</td>
<td>31 January</td>
</tr>
<tr>
<td>Produce publicity materials</td>
<td>Sam</td>
<td>1 February</td>
<td>28 February</td>
</tr>
<tr>
<td>Send out mail shot</td>
<td>Sam</td>
<td>1 March</td>
<td>31 March</td>
</tr>
</tbody>
</table>

**Figure 4.7 Example of an action plan**
Gantt charts
Gantt charts are used to show the project tasks that take place within a particular time period, for example a week or month. The technical name for the charts comes from their developer Henry Gantt (1861–1919). If you are working on a small project or don’t have access to project manager software you can produce the bar or Gantt charts using a whiteboard and pens, a wall calendar and sticky paper, or a spreadsheet. An example Gantt chart is shown in Figure 4.8.

Many project managers and teams use Gantt charts because they are easy to read, show the relationship between the project tasks and the timescale of the project, and recurrent (or repeated) tasks and milestones. It is very easy to look at a Gantt chart and identify times when there may be pressure on the project, for example as a result of information workers’ holidays or peaks in customer demands. However, they have two main disadvantages: they don’t show the relationships between different tasks and they don’t show the critical path.

Figure 4.8 presents a basic Gantt chart, which shows the tasks that need to be carried out for organising a conference and their timescale. This type of Gantt chart can be prepared using the table function in basic word processing software or a spreadsheet. Alternatively, if you use project management software then inputting this type of data may also result in the production of a PERT (or similar) diagram without any additional input of data.

### Case study 4.4  Early stages of organising a conference

<table>
<thead>
<tr>
<th>Tasks</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book conference facilities</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Book speakers</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produce publicity materials</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send out mail shot</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage bookings</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Run conference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Figure 4.8  Example of a Gantt chart**

PERT diagrams
Another way of obtaining a clear picture and detailed information about
the project is to produce a PERT (programme evaluation and review technique) diagram; this type of diagram was developed in the USA. A PERT diagram shows the logical relationship between tasks, which may be prepared using a large piece of paper and pen, a whiteboard or project management software. PERT diagrams are very similar to flowcharts and provide an overview or the ‘big picture’ of the project. Their advantage over Gantt charts is that they show the relationships between the tasks. PERT diagrams produced electronically often have the critical path highlighted in red, which makes it very easy for the project manager to identify those tasks which must be completed on time if the whole project is to meet its deadline. However PERT diagrams can be large and difficult to work from. If you use project management software it can be very difficult to see the whole view of the project on a single screen. Example PERT diagrams are shown in figures 4.9 and 4.10. The example in Figure 4.10 was produced using SmartDraw®.

Figure 4.9 Example of a PERT diagram

Figure 4.10 Example of a PERT chart produced using SmartDraw®
Source: SmartDraw (www.smartdraw.com)
Communicating a plan

It is important to think about the way in which you will communicate your project plan. In my experience, action plans and Gantt charts are the most commonly used methods as they are easy to read and work through. In contrast, PERT diagrams, particularly for large and complex projects, can be difficult to present and work through in a meeting and are perhaps best kept for use by the project manager and team. Many project management software packages enable you to export files and images from your project plan into everyday office packages such as Word and PowerPoint, which enables you to provide good quality images to support your communications.

How will the tasks be carried out?

In the previous sections, the project schedule identifies the what, who and when of the project. An important aspect of project management is thinking about how the work will be carried out. This is likely to result in the production of a detailed set of procedures plus guidance on the required standards of work for all the staff working on that part of the project to follow. Detailed procedures or protocols are produced in a wide range of projects, e.g. digitisation projects, developing information systems and the movement of library collections. They are particularly important for complex projects involving different teams of information workers who are widely distributed geographically.

Case study 4.5 Moving a library

This case study describes some of the activities at Dublin City Library where staff were involved in moving a library and reorganising its collection at the same time. Allen and Bowden (2001) provide a very detailed description of the process, which included the following tasks:

- an initial stock weeding project
- measuring the stock
- designing the new library layout
- calculating shelf space
- re-organising stock for new spaces, including:
  - thinking about the visual impact
  - re-arranging some collections to enhance visual impact
  - allocating shelf space using photocopies of new building and stock measurement figures, marking out each collection by using a different colour
Working out the finances
When planning the project the finances need to be worked out. This is described in Chapter 8.

Carrying out a detailed risk analysis
Risk analyses were introduced in Chapter 3, which included a simple methodology for carrying one out. As you approach the end of the planning process it is worth performing it again as you will now have a more detailed understanding of the project and what it entails. The results of the risk analysis should be included in the project plan.

Designing the project evaluation process
At the project planning stage think about and start to develop the evaluation process so you can collect the relevant information during the project implementation process. Further information about project evaluation is presented in Chapter 6.

Documenting the project
At the planning stage think about how you will record and document the project. In all projects, it is worth considering making all project documentation available on a shared drive. Clearly you will need to document:

- devising a transfer coding system with a colour–number–letter sequence
- labelling shelves in the old library using a colour-coded A4 card attached to shelves written in duplicate (for the old and the new library), showing the shelf number, collection details and subject floor
- labelling individual shelves in the old library using coloured, easy-peel, self-adhesive labels attached to the crates
- keeping an inventory of all shelf numbers
- marking plans to ensure that the materials were correctly shelved
- labelling shelves in the new library
- developing working practices with the moving company.

Allen and Bowden (2001) describe how numbers of library staff working at different times on the project may change to match the specific tasks taking place, so it is necessary to work out carefully what is required with the moving company, e.g. who is responsible for each aspect of the physical move down to the level of putting labels on the crates.
• all project meetings and reports
• key stages: project brief, project plan, records of project implementation process, project evaluation report
• key e-mails, e.g. confirming project approval and budget
• consultation activities and feedback from stakeholders.

A simple and very useful document is a work diary in which key project activities and decisions are recorded. These are particularly valuable for long-term projects lasting one or more years, when there is a need to recall something that occurred earlier in the life of the project.

There are different ways to keep a project work diary which may be kept by the project manager and/or team leaders (in large projects) and/or team members.

**Reporting progress**

At the initial planning stages it is important to think about how the project manager will obtain information about the project’s progress. This process will be refined in more detail after the production of the detailed project plan. In general, the project manager needs to obtain information about the progress of the project, for example from team workers, to identify feedback:

• on the progress of the project plan – significant dates and milestones, significant constraints, potential and existing problems, and creep or slack in project time
• from users and other stakeholders
• from library and information colleagues.

The project manager reports progress to her manager and the following groups (as appropriate):

• the project steering group
• the project management team
• the funding organisation
• library and information service colleagues and customers
• stakeholders
• senior managers.
The type of reports used to keep everyone informed depends on the project and all the different stakeholders. Common reports include management reports, milestone reports and financial reports. The structure of the reports can vary from informal to extremely formal. Externally funded projects generally have very strict rules about reporting and specify the reporting process, including the form and report templates (see Chapter 8). It is worth spending some time at the start of the project to identify the reporting requirements so you can set up the appropriate systems to provide the necessary information for the reports. This will ensure that the reporting process is well managed and does not involve last-minute panics as the project manager and team discover they have not collected the correct information.

At the end of the project, the project manager often writes formal reports, for example a final summary report and a final financial report, which may include an internal project evaluation and review reports. Many projects are also reviewed by an external agency, which results in an external project evaluation and review form to be completed. Again, it is worth thinking about the final project reports at the start of the project process so you can plan for their production throughout the project process. This topic is covered in Chapter 6.

**Developing a project communication strategy and plan**

At the planning stage of the project, think about your communication strategy and how you will communicate with two main groups: the project team(s) and the external stakeholders – customers, colleagues not involved in the project, and the library and information profession.

**Communications within the team**

Internal communications within the project team are likely to take place via meetings, e-mails, phone calls and a website. The project manager and team decide on their working practices, considering factors such as:

- use of a shared drive
- use of a whiteboard within the office
- use of e-mail and practices with regards to copying and blind copying e-mails
- use of project management and/or collaborative software (see Chapter 7)
• normal response times to colleagues’ e-mails
• how to deal with absences (holidays or sickness).

Communications beyond the project team
The project manager and team communicate their work to stakeholders beyond the project team through an external information and communication process, which is a vital part of the project. Ideally stakeholders should be kept informed about the project from start to finish so they don’t receive any unexpected shocks or surprises, though it is important not to over-communicate and cause boredom or information overload.

The amount of time and energy devoted to the external communications depends on the nature of the project. In major projects the project team may have a working party whose primary consideration is the external communication process. Developing a strategy helps to ensure that all aspects of external communications are considered in some detail:

• What is the purpose of the external communication strategy?
• Who is responsible for implementing the external communications strategy?
• With whom will you communicate?
• What will you communicate?
• How you will communicate – through e-mail, website, social media, weekly update, leaflets and posters, briefing meetings?
• How will you obtain feedback about the project and its impact?
• Who is responsible for giving, receiving and acting on feedback?

It is worth working through these questions with the project team and using your answers to develop an external communication strategy. In general, use as many different forms of communication as possible – meetings, presentations, workshops, briefings, press releases, e-mails, social media, newsletters, posters and reports – and repeat your message a number of times.

Future-proofing a project
If you are planning a project it is worth thinking about the future. What will happen to the project if you or other key team members leave before it is completed? Will the project be sustainable? Farkas (2015), a faculty librarian in a community college in the USA, writes about the importance of future proofing your project:
Whenever I leave a job, I worry about projects I led or supported. When you put months or years into something you feel passionately about, it can start to feel like your baby. When you leave for a new position, you have to put that baby’s future into someone else’s hands. Developing a sense of detachment can be difficult. It is easier to leave a project behind when you know there are people equipped and committed to supporting it. I’ve heard horror stories about libraries that have not been able to maintain technologies – from blogs and Facebook pages to mission-critical, homegrown software after an employee left. It’s challenging to think of leaving as part of project planning…

Here is a summary of the advice Farkas (2015) provides to make sure your project is sustainable if you or colleagues leave:

- Make sure your project is aligned with the library strategy.
- Think about how easy it will be to maintain the technology. Do you have the staff capacity to maintain it? If you are using subscription-based software is there funding to maintain it?
- Who will maintain the project in the future?
- Is your documentation thorough and up to date?
- How will you assess and evaluate the project?

Bringing it all together
The output of the planning stage is a project plan, which will be used as a formal working document by project workers. There are a number of methods of producing this plan. In very large and complex projects the project plan may be written up in the form of a detailed specification identifying the detail of the project process, the resource requirements and the boundaries of the project. In small and relatively simple projects the project manager and team can produce a simple plan. These types of project plans are outlined below.

Small-scale and simple project plans
In relatively small-scale and simple projects there is no need to produce sophisticated project plans. It is often sufficient to produce a project plan that contains:

- a project brief
• an action plan
• details of staffing implications
• details of financial requirements
• a risk analysis.

Large-scale and complex project plans
Large and complex projects, particularly those involving different units, departments or organisations, require a project specification as a tool for deciding and confirming the boundaries and details of the project, and the responsibilities of key staff. It is an important document and once agreed lays down the project parameters. Any changes to the project require the re-negotiation of the project specification.

The specification can be a valuable tool for the project manager, if only because it can be used to prevent stakeholders (including senior managers and directors) from moving the goalposts and changing the project outcomes or resources without discussions and/or the agreement of the project manager and management team. Different organisations have their own standard project specification template but the structure of a project specification is typically as follows:

• title page
• introduction
• purpose
• background
• goals and objectives
• scope and limitations
• strategy
• description of main activities
• project schedule
• resources
• finance
• list of staff and their involvement
• connections to other activities
• transitional arrangements
• communication strategy
• management structure
• reporting schedule
• risks
• quality standards, processes and procedures
• intellectual property, patents and licences
• insurance
• distribution list
• formal approval (signature, name, date).

The contents of project specifications vary depending on the project and they may be called by other names such as project definition, plan or strategy.

Case study 4.6  A collaborative approach to develop a new library system
Saarti et al. (2015) describe the aim of a project to assess the feasibility of introducing a comprehensive library system for all types of libraries in Finland. Libraries from different library sectors in Finland have different traditions, domains of expertise, and social environment. The project plan included:

• discussion of joint guidelines and culture (e.g. principles for lending and cataloguing)
• information on products and functions based on library systems
• information on the opportunities and needs of joint databases (bibliographic, collections, customer and similar databases)
• joint and tailored sections
• information on standards and interfaces
• a risk analysis
• a financing solution and cost-benefit analysis
• an administrative model and a discussion of legal issues
• a timetable.

Communicating the project plan
If the project team produced the plan collaboratively they are likely to feel ownership over it, but if the project manager produced the plan alone it should be circulated and promoted to the relevant people: the project team, the management team and, if appropriate, the steering group.

It may be helpful to break down very detailed project specifications and only present different audiences with the particular section that is relevant to them, as described in this case study.
Gaining approval for the project plan
In many projects, the approval to go ahead is made on the basis of the project plan. This makes the project plan a crucial document. Once you have gained approval for your project, e.g. from your line manager or the steering group, you can move on to the next stage: project implementation.

Summary
This chapter gave an overview of the project planning process and included case studies and examples that are relevant to small-scale, simple, large-scale or complex projects. There is an extensive range of project management tools and techniques, e.g. Gantt charts, PERT diagrams, and calculation of the critical path, that are helpful in working out the project plan. Project management software is considered in Chapter 7. In general, it is vital to the success of the project to plan it at the level of detail that is appropriate for its success. Time spent on planning is rarely wasted and it may help you avoid making mistakes.

Project planning involves working with a wide range of people and it is necessary to consider their roles in the project and your communication strategy. The people side of projects is vital to their success. Chapters 9 and 10 discuss this in more detail. The next chapter focuses on implementing the project plan.

References
exit, American Libraries, 46 (6),
https://americanlibrariesmagazine.org/2015/06/15/future-proof-your-project/.
