**CHAPTER 1**

**Introduction to Project Management**

**LEARNING OBJECTIVES—**

This chapter presents a broad introduction to project management. After completing this chapter, each student should be able to perform the following:

* Define a project in your own words using characteristics that are common to most projects and describe reasons why more organizations are using project management.
* Describe major activities and deliverables at each project life cycle stage.
* List and define the ten knowledge areas and five process groups of the project management body of knowledge (PMBOK®).
* Delineate measures of project success and failure and reasons for both.
* Contrast predictive or plan-driven and adaptive or change-driven project life cycle approaches.
* Identify project roles and distinguish key responsibilities for each.

**TEACHING STRATEGIES**

* Each chapter starts with learning objectives stated in measurable form as shown above. If you start with slides that list the objectives, you can emphasize that the students need to be able to accomplish each. I find it helpful to paraphrase a few of them and pick one to ask the students why they think it is included.
* Many students will not have read the first chapter before the first class. Mike’s introductory essay on how he successfully climbed Mount Aconcagua (second highest of the Seven Summits after Mount Everest) whereas others died in the attempt is a great attention getter.
* I believe in active learning, so I include at least one breakout session every hour. These are often preceded by an introduction of the material and I pose at least one question or framework for the students to follow. I find a few simple rules are fun for the students and encourage participation. I always ask one person to record what the group discussed/decided. I ask a different person to be the group’s spokesperson – that way at least two people stay alert. I also always ask the spokesperson to state what they learned from the exercise and “ditto” does not count. That means they cannot take the easy way out and say another group took their idea. This encourages volunteers to report first and forces teams to think beyond the obvious lesson and think creatively. If there are points I especially want to emphasize, I will summarize by repeating the points (and crediting the groups who made them) or introducing them if no group mentioned them. The first example breakout session follows.
* Once we briefly cover what a project is (students in discussion will provide examples) and why project management is important, I ask the students to work in groups of four or five with large paper or sections of a chalk or white board. I ask them to describe project success and reasons for each for about 10 minutes. Alternatively, you can ask the students to describe project failure and the causes of it. Either way, you set the expectation that students will actively participate in every class. It also serves as in introduction to the need to develop both soft and hard skills.
* Since some students enjoy software, I mention MS Project early. An easy way to do this is to have the students look at the inside front cover on the left to see what MS Project is used for and where it is covered in the book.
* I like to cover the concept of project life cycles. It is easy to use a house-building project as an example since the walk-through to inspect the project result helps students envision the idea of an approval to pass from one stage to the next.
* The increasing popularity of the agile (adaptive or change-driven) approach to projects creates another opportunity for discussion. You can introduce the extremes of totally plan-driven versus totally adaptive project schedules and ask what type of projects might lend themselves to each and what are some of the advantages and disadvantages of each. This discussion can culminate with the idea that contemporary project management can use parts of both and that we will explore differences throughout the course. An agile icon appears in the margin in many places in the text where either different methods and/or different terminology is used in agile versus plan-driven approaches. The corresponding text is in alternate color to call attention to it.
* An introduction to PMI® is useful. It sets the stage for discussing accreditation, process groups, knowledge areas, glossary terms, and special interest groups. I take this opportunity to encourage students to become student members at a greatly reduced cost.
* Several features of this text help a student to understand *The Guide to the Project management Body of Knowledge* *5th ed.* (*PMBOK® Guide*). This most current version of the guide is what students will need to completely understand if the wish to challenge a Project Management Professional (PMP) or Certified Associate in Project management (CAPM) certification exam.
	1. You can ask the students to look at the inside front cover of the book on the right side to see both how the *PMBOK® Guide* is structured and exactly where each process is covered in the text.
	2. You can also have the students turn to the back inside cover for a flowchart of the processes in the order in which they should be performed. This is not a complete *PMBOK® Guide* flowchart as that would be quite lengthy and confusing, but rather one that emphasizes primarily the things students will need to learn to create the various planning and control documents that will help them plan and manage a project. One slide is available in the PowerPoint deck of the overall flowchart and several smaller sections of the flowchart are available as slides also so when you introduce topics, you might also want to remind students visually where they are in the planning flow.
	3. The *PMBOK® Guide* topics for each chapter are listed in the margins of the second chapter page.
	4. Key terms from the *PMBOK® Guide* are listed immediately after the project summary.
	5. These key terms are defined in the glossary on page 443.
	6. At the end of each chapter one assessment section is *PMBOK® Guide* questions. These questions are very similar to CAPM and PMP exam questions. In fact, Tom McCabe, PMP, who wrote these questions, was on the PMI committee that updated the *PMBOK® Guide* to the fifth edition. Correct answers to each of these questions along with page references from both this text and the *PMBOK® Guide* appear in this IM.
	7. Finally, Appendix A starting on page 439, is a summary of study suggestions for anyone who wishes to take one of the certification exams. I have taught many exam preparation classes both for PMI and for private providers. This brief set of suggestions are a quick summary from my teaching prep classes since 1991.
* The Project Customer Tradeoff Matrix gives the opportunity to discuss how a project manager can make consistently better decisions by fully understanding the customer. It also is an early opportunity to discuss the challenges of honest, open communications and ethical challenges that can arise. I like to use two different projects in the same industry that made different trade-off decisions as an example. For me it is easy since we built our on-campus arena with a strong emphasis on cost control and had to play one more season in our old facility while one of the professional teams in town placed so much emphasis on playing their entire season in their new stadium that their overrun cost more than our entire arena!
* Project roles are briefly introduced here, but described in much greater detail in Chapter 3. You may wish to tell your students that even though they are studying to be project managers, it is important for them to understand other roles that need to be accomplished. Project managers spend a large percentage of their time communicating and these roles describe many of the people with whom they will communicate.
* I like to use real projects as teaching vehicles. The end of Chapter 1 is a good place to introduce the projects. See specific ideas in example project section below.

**LECTURE AND WORKSHOP OUTLINE**

* 1. **What is a project?**

 **Project** -“a temporary endeavor undertaken to create a unique product, service, or result” *PMBOK*® *Guide 553*.

Each project has unique **stakeholders** “individual, group or organization who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project” *PMBOK*® *Guide* 563.

 **Project management** “the application of knowledge, skills, tools and techniques to project activities to meet project requirements” *PMBOK*® *Guide 554*.

* 1. **History of Project Management**

 All through history projects have been conducted

 Formal discipline starting 1950s – scheduling and control

 Recent years – more focus on communications and leadership

* 1. **How Can Project Work be Described?**

 Projects vs. operations

 Soft skills and hard skills

 Authority and responsibility

 Project life cycle

 Agile (adaptive) approach

 Initiating, planning, executing, closing

* 1. **Understanding projects**

 Project Management Institute (PMI)

 Project Management Body of Knowledge (PMBOK*®*)

 Process groups

 Knowledge areas

 Selecting and Prioritizing Projects

 Project Goals and constraints

 Defining Project Success and Failure

 Using Microsoft Project to Help Plan and Measure Projects

 Types of projects

 Industry – PMI Special Interest Groups (SIGs)

 Size

 When project manager is able to clearly determine scope

 Application – organizational change, quality improvement, R&D, Information Systems (IS), construction

 Scalability of project tools

**1.5 Project roles**

 Executive roles

 Steering Team, Chief Projects Officer, Sponsor

 Managerial roles

 Project Manager, Functional Manager, Facilitator, Customer, Scrum Master

 Associate roles

 Core Team Member, Subject Matter Expert

**1.6 Overview of book**

**PART 1 ORGANIZING AND INITIATING PROJECTS**

Chapter 1: Introduction to Project Management

Chapter 2: Project Selection and Prioritization

Chapter 3: Organizational Capability: Structure, Culture, and Roles

Chapter 4: Chartering Projects

**PART 2 PLANNING PROJECTS**

Chapter 5: Stakeholder Analysis and Communication Planning

Chapter 6: Scope Planning

## Chapter 7: Scheduling Projects

## Chapter 8: Resourcing Projects

## Chapter 9: Budgeting Projects

## Chapter 10: Project Risk Planning

Chapter 11: Project Quality Planning and Project Kick-Off

**PART 3 PERFORMING PROJECTS**

Chapter 12: Project Supply Chain Management

Chapter 13: Leading and Managing Project Teams

Chapter 14: Determining Project Progress and Results

Chapter 15: Finishing Projects and Realizing the Benefits

**CHAPTER REVIEW QUESTIONS**

1. What is a project? (objective #1)

The narrow answer is: a **project** is “a temporary endeavor undertaken to create a unique product, service, or result” *PMBOK*® *Guide* 553.

The broader answer is: a project is an endeavor that requires an organized set of work efforts that are planned in a level of detail that is progressively elaborated as more information is discovered. Projects are subject to limitations of time and resources such as money and people. Projects should follow a planned and organized approach with a defined beginning and ending. Project plans and goals become more specific as early work is completed. The output often is a collection of a primary deliverable along with supporting deliverables such as a house as the primary deliverable and warranties and instructions for use as supporting deliverables. Each project typically has a unique combination of **stakeholders** – “an individual, group, or organization who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project” *PMBOK*® *Guide* 563. Projects often require a variety of people to work together for a limited time and each needs to understand that completing the project will require effort in addition to their other assigned work.

3. How are projects different than ongoing operations? (objective #1)

Projects are temporary while operations are ongoing.

2. What is project management? (objective #1)

**Project management** is “the application of knowledge, skills, tools and techniques to project activities to meet project requirements” *PMBOK*® *Guide 554*. This includes work processes that initiate, plan, execute, control, and close work.

Project management includes both administrative tasks for planning, documenting, and controlling work and leadership tasks for visioning, motivating, and promoting work associates.

4. What types of constraints are common to most projects? (Objective #1)

Project performance, comprised of scope (size), quality (acceptability of the results) is constrained by cost, and schedule.

5. Which deliverable authorizes the project team to move from Selecting & Initiating to Planning? (Objective #2)

 Charter.

6. At what stage of a project life cycle are the majority of the “hands-on” tasks completed? (Objective #2)

Executing.

7. During which stage of the project life cycle are loose ends tied up? (Objective #2)

 Closing.

8. What are the five process groups of project management? (Objective #3)

 Initiating, Planning, Executing, Monitoring & Controlling, Closing

9. Which process group defines a new project or phase by obtaining authorization? (Objective #3)

 Initiating

10. What are the ten project management knowledge areas? (Objective #3)

The nine knowledge areas as paraphrased from the *PMBOK*® *Guide*, pages 9 and 10 are: scope, time, cost, quality, human resources, communications, risk, procurement, integration, and stakeholders.

11. What two project dimensions are components of project performance? (Objective #4)

Scope and quality.

12. How do you define project success? (objective #4)

Project success is creating deliverables that include all of the agreed upon features (meet scope goals). The outputs should satisfy all specifications and please the project’s customers. The customers need to use the outputs effectively as they do their work (meet quality goals). The project should be completed on schedule and on budget (meet time and cost constraints).

Project success also includes other considerations. A successful project is one that is completed without heroics – that is, people should not burn themselves out to complete the project. Those people who work on the project should either learn new skills and/or refine existing skills. Organizational learning should take place and be captured for future projects. Finally, the parent organization should reap business level benefits such as development of new products, increased market share, increased profitability, decreased cost, etc.

 Project success as summarized in Exhibit 1.4 include the following: ESS

• Meeting Agreements

– Cost, schedule, and specifications met

• Customer’ Success

– Needs met, deliverables used, customer satisfied

• Performing Organization’s Success

– Market share, new products, new technology

• Project Team’s Success

– Loyalty, development, satisfaction

13. How do you define project failure? (objective #4)

Project failure is not meeting all of the success criteria listed above. Serious project failure is when some of the success criteria are missed by a large amount and/or when several of the success criteria are missed by even a small margin.

14. List four common causes of project failure. (objective #4)

* Not enough resources are available for project completion,
* Not enough time has been given to the project,
* Project expectations are unclear,
* Changes in the scope are not understood or agreed upon by all parties involved,
* Stakeholders disagree regarding expectations for the project, and
* Adequate project planning is not done.

15. What are three common ways of classifying projects? (objective #5)

Projects can be classified by industry, size, when scope can be determined with confidence, and type such as organizational change, quality and productivity improvement, R&D, information systems (IS), and construction.

16. What is predictive or plan-driven planning and when should it be used? (Objective #5)

 Predictive or plan-driven planning occurs when the majority of planning is done before any part of the project is executed. This is used when it is easy to estimate the amount of work required and, therefore, there is a high degree of certainty as to what the project scope will be.

17. What is adaptive or change-driven planning and when should it be used? (Objective #5)

 Also known as iterative planning, this is used when there is a great degree of uncertainty at project inception as to what its overall scope will be. As the project moves forward and more details emerge, planning changes from general to specific.

18. What makes someone a project stakeholder? (Objective #6)

Stakeholders are people or organizations that are actively involved in the project, or whose interests may be positively or negatively affected by either the process of performing the project or the project results.

19. What are three project executive-level roles? (objective #6)

There are three project executive level roles: the steering team, the chief projects officer, and the project sponsor. A steering or leadership team for an organization is often the top leader (CEO or other) and his or her direct reports. The chief projects officer is the keeper, facilitator, and improver of the project management system. The sponsor has a financial stake in the project, charters the project, reviews project progress, is often part of the steering team, and often mentors the project manager.

20. List and describe each of the managerial and associate roles. (objective #6)

The four project managerial level roles are the project manager, functional manager, facilitator, and senior customer representative. The project manager: is directly accountable for the project results, schedule, and budget; is the main communicator; and often must get things done through the power of influence since his or her formal power may be limited. The functional managers are department heads that determine how the work of the project gets accomplished; often supervise that work and often negotiate with the project manager regarding which workers are assigned to the project. A facilitator is sometimes assigned to complex or controversial projects to assist the project manager with the process of running meetings and making decisions. The senior customer representative ensures that the needs and wants of the various constituents in the customer’s organization are identified and prioritized and that project progress and decisions continually support the customer’s desires.

The two associate level project roles are core team members and subject matter experts. Core team members are assigned to the project for its entire duration if possible and jointly make decisions with the project manager. Subject matter experts are brought in as needed to help with specific project activities.

**DISCUSSION QUESTIONS**

1. Using an example, describe a project in terms that are common to most projects. (Objective #1, Understanding)

Answers vary. The example should include some reference to project goals (scope and quality), project constraints (budget and schedule), stakeholders, communication needs, and the project life cycle.

2. Why are more organizations using project management? If you were an executive, how would you justify your decision to use project management to the board of trustees? (Objective #1, Creating)

* Rapid growth and changes in industries – particularly information and communications technology.
* Increasing customer demands for rapid introduction of new products and technologies.
* Global competition driving down prices.
* Increasingly complex products and services

3. Explain how to scale up or down the complexity of project planning and management tools and what effect, if any, this might have on the project life cycle. (Objective #2, Evaluating).

A very small project might be to build a garage. This could be accomplished with very simple description of the resulting garage (scope), a firm fixed price contract with few provisions, a schedule for construction, and exchange of contact information. All of the planning might be accomplished with a very few short, simple documents. A much larger and more complex project might use many more documents for planning and control and many of the documents could have considerably more detail.

4. List and describe several issues that pertain to each stage of the project life cycle. (Objective #2, Remembering)

* **Initiating** – when a project is proposed, planned at a high level, and key participants commit to it in broad terms;
* **Planning** – starts after the initial commitment, includes detailed planning, and ends when all stakeholders accept the entire detailed plan;
* **Executing** – includes authorizing, executing, monitoring, and controlling work until the customer accepts the project deliverables; and
* **Closing** – all activities after customer acceptance to ensure project is completed, lessons are learned, resources are reassigned, and contributions are recognized.

5. Put the five project management process groups in order from the one that generally requires the least work to the one that requires the most. (Objective #3, Analyzing)

Answers will vary. Students should be able to defend their answers. 5 process groups:

* **Initiating** – defines and authorizes a project or a project phase;
* **Planning** – defines and refines objectives and plans actions to achieve objectives;
* **Executing** – directs, and manages people and other resources to accomplish project work;
* **Monitoring and controlling** – collects data and checks progress to determine any needed corrective actions; and
* **Closing** – formalizes acceptance of project outcomes and the project is brought to a conclusion.

6. Name the ten project management knowledge areas and briefly summarize each. (Objective #3, Understanding)

* **Scope management** – determining all the work that is necessary for project completion;
* **Time management** – defining, sequencing, and estimating duration, and resourcing work activities as well as developing and controlling the schedule;
* **Cost management** – planning, estimating, budgeting, and controlling costs;
* **Quality management** – quality planning, assurance, and control;
* **Human Resource management** – acquiring, developing, and managing the project team;
* **Communications management** – generating, collecting, disseminating, storing, and disposing of timely and appropriate project information;
* **Risk management** – risk identification, analysis, response planning, and monitoring and control;
* **Procurement management** – purchasing or acquiring product and services as well as contract management; and
* **Integration management** – unifying and coordinating the other knowledge areas by creating and using tools such as charters, project plans, and change control.
* **Stakeholder management**—identifying all possible stakeholders, analyzing their various needs and expectations, communicating with stakeholders throughout life of project.

7. Discuss how a project could be successful by some measures yet unsuccessful by others. (Objective #4, Analyzing).

A project may end on time but over budget or under budget but of lower quality than planned.

8. What does project failure mean? What are some good examples? (Objective #4, Understanding)

Project failure is not meeting all of the agreed-upon success criteria in the project plan. Serious project failure is when some of the success criteria are missed by a large amount and/or when several of the success criteria are missed by even a small margin. An example could be a project that is has to end prematurely due to being severely over budget or an IS project whose deliverable is unhelpful to the client.

9.Compare and contrast advantages and disadvantages of predictive/plan-driven and adaptive/change-driven project life cycle approaches. (Objective #5, Creating)

Predictive—more time spent upfront on planning; more difficult to change plan at later stages

Adaptive—allows for greater flexibility on unknown projects, may be harder for team to have common understanding of project and long-term expectations

10. You are given a project at random to manage. How do you decide whether to use a predictive or adaptive approach? (Objective #5, Applying)

First you need to get an idea of what the project requires. Is the deliverable(s) and process needed to achieve it/them easy or difficult to understand? In other words, how much certainty is there about your project scope? If its certainty is high because it is a small and/or routine project, predictive planning is probably the way to go. If there are lots of variables outside your control and/or a great deal of uncertainty, perhaps an adaptive approach is favorable.

11. Contrast project managers and functional managers. (Objective #6, Understanding)

The project manager is normally directly accountable for the project results, schedule, and budget. This is the person who is the main communicator, who is responsible for the planning and execution of the project, and who has to be working on the project from start to finish. The project manager often must get things done through the power of influence since his or her formal power may be limited

Functional managers are the department heads – the ongoing managers of the organization. They will normally determine how the work of the project gets accomplished; often directly supervising that work and they are likely to negotiate with the project manager regarding which workers are assigned to the project.

12. List as many project roles as you can, and identify what each one is responsible for in terms of the project. (Objective #6, Remembering)

Core team members are ideally assigned to the project for its entire duration. They work with the project manager to make decisions, perform hands-on work, and sometimes supervise the work of subject matter experts.

Subject matter experts are brought onto the project when needed to perform specific activities. They are not normally involved in making project-wide decisions or in supervising the work of others.

A steering or leadership team for an organization is often the top leader (CEO or other) and his or her direct reports. The chief projects officer is the keeper, facilitator, and improver of the project management system. The sponsor has a financial stake in the project, charters the project, reviews project progress, is often part of the steering team, and often mentors the project manager.

The four project managerial level roles are the project manager, functional manager, facilitator, and senior customer representative. The project manager: is directly accountable for the project results, schedule, and budget; is the main communicator; and often must get things done through the power of influence since his or her formal power may be limited. The functional managers are department heads that determine how the work of the project gets accomplished; often supervise that work and often negotiate with the project manager regarding which workers are assigned to the project. A facilitator is sometimes assigned to complex or controversial projects to assist the project manager with the process of running meetings and making decisions. The senior customer representative ensures that the needs and wants of the various constituents in the customer’s organization are identified and prioritized and that project progress and decisions continually support the customer’s desires.

***PMBOK ® Guide* Questions**

The purpose of these questions is to help visualize the type of questions on PMP and CAPM exams. The correct answer is shown in bold and the *PMBOK ® Guide* page references as well as page references from this book are shown below each question.

1) Which project role provides resources or support for the project, promotes and protects

the project at higher levels of management, and takes an active role in the project from the

chartering stage through project closure?

a) Functional manager

b) Project manager

c) Project team member

d) Project sponsor

Answer: d

Pages14 in textbook:

Page 32 in PMBOK 5th Edition

2) Which PMBOK® Guide Knowledge Area includes those processes required to ensure

that the project includes all the work required, and only the work required, to complete

the project successfully?

a) Cost management

b) Scope management

c) Risk management

d) Quality management

Answer: b

Page 9 in textbook

Page 105 in PMBOK 5th Edition

3) In order to be successful, the project team must be able to assess the needs of

stakeholders and manage their expectations through effective communications. At the same time they must balance competing demands between project scope, schedule, budget, risk, quality, and resources, which are also known as project \_\_\_\_\_?

a) Plan elements

b) Deliverables

c) Constraints

d) Targets

Answer: c

Pages 10 through 11 in textbook

Page 6 in PMBOK 5th Edition

4) In which project management process group would you find those processes that

establish the scope of effort for the project, refine the project objectives, and define the

course of action to achieve the objectives?

a) Initiating process group

b) Planning process group

c) Executing process group

d) Monitoring and Controlling process group

Answer: b

Page 9 in textbook

Page 55 in PMBOK 5th Edition

5) Projects pass through a series of phases as they move from initiation to project closure.

The names and number of these phases can vary significantly depending on the organization, the type of application, industry, or technology employed. These phases create the framework for the project, and are referred to collectively as the:

a) Project life cycle

b) Project management information system (PMIS)

c) Product life cycle

d) Quality methodology

Answer: a

Pages 6 through 8 in textbook

Page 38 in PMBOK 5th Edition

6) Based on PMI’s definition, which of these is a good example of a project?

a) Manufacturing a standard commodity

b) Following policies and procedures for procuring an item

c) Designing and launching a new website

d) Using a checklist to perform quality control

Answer: c

Page 4 textbook

Pages 12 through 13 PMBOK 5th Edition

7) The responsibilities of a project management office (PMO) and the degree of control that

it provides can cover a broad spectrum. All of these are examples of types of PMO

structures within organizations except:

a) Controlling – require compliance through various means

b) Selective – review business cases and select and prioritize projects to be initiated.

c) Supportive – perform a consultative role through training, templates, and best practices

d) Directive – provide a high degree of control by directly managing the projects.

Answer: b

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Pages 10 through 12 PMBOK 5th Edition

8) When would a predictive project life cycle be the preferred approach?

a) When the high-level vision has been developed, but the product scope is not well

defined.

b) When the environment is changing rapidly.

c) When the product to be delivered is well understood.

d) When the product will be created through a series of repeated cycles.

Answer: c

Pages 6 through 7 textbook

Pages 44-46 PMBOK 5th Edition

9) To be effective, a project manager needs to possess all of the following competencies

except:

a) Personal effectiveness – attitudes, core personality traits, leadership

b) Authority – power or right granted by the organization

c) Performance – what the project manager can accomplish while applying their project

management knowledge

d) Knowledge of project management – understanding of project management tools and

techniques

Answer: b

Pages 5 through 6 textbook

Page 17 PMBOK 5th Edition

10) In Adaptive Life Cycles (change – driven or agile methods) \_\_

a) The overall scope of the project is fixed and the time and cost are developed incrementally.

b) The overall cost is fixed and the project scope and schedule are developed iteratively.

c) The time and cost are fixed but the scope is developed iteratively.

d) Change control is very important.

Answer: c

Pages 6 through 8 textbook

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**EXAMPLE PROJECT**

I like to use real projects as teaching vehicles. The end of Chapter 1 is a good place to introduce the projects. On a two or three days a week schedule, this can be the last day. On a one day per week schedule, this can be the last hour. I cover this in three parts. I ask a person from each agency that will have a student project to attend this. That person can be called the project sponsor.

First, I tell the students a tiny bit about each project such as it is a fund raising or information systems project. I like to ask the students what criteria will be useful in deciding on project teams. This operationalizes the need for both soft and hard skills. It also gets the students thinking about practical issues of meetings (available time and locations). Once we have brainstormed a few ideas for team assignments, I ask the students to provide me with brief inputs regarding their background on those ideas. The students can also list a preference for which project – but I tell them if they list one preferred project; they must list at least a first and second choice. It is easy to give most students first or second choice, but difficult to give all students first choice.

Second, I spend about 10 minutes communicating common expectations to the student teams as well as the project sponsors. I tell both that I want them to initiate an effective working relationship and then I itemize the student assignments with due dates. I give everyone a hard copy. I spend a bit more time explaining the charter since that is the first deliverable.

Third, I ask each sponsor to give an elevator speech (a very brief introduction to their organization and then tell very briefly what their project is and why it is important). While these sponsors are talking, I make project assignments. I base these on a combination of their preferences and the information they tell me about themselves. I try to make diverse teams when possible. Once all have been presented, I tell the students who will be on which project. I allow them the opportunity to trade projects if they wish, but very few do. I ask the students to exchange information with their sponsors and arrange for their first meeting.