

Chapter 1: Introduction to Project Management

Chapter Overview

Chapter 1 provides an introduction to the field of project management, emphasizing the area of information technology projects. It defines what a project is, what project management entails, the role of the project manager, and important key terms. It also provides a brief history of project management and discusses the project management profession.

Chapter Objectives

- Understand the growing need for better project management, especially for information technology (IT) projects
- Explain what a project is, provide examples of IT projects, list various attributes of projects, and describe the triple constraint of project management
- Describe project management and discuss key elements of the project management framework, including project stakeholders, the project management knowledge areas, common tools and techniques, and project success
- Discuss the relationship between project, program, and portfolio management and the contributions each makes to enterprise success
- Understand the role of project managers by describing what they do, what skills they need, and career opportunities for IT project managers
- Describe the project management profession, including its history, the role of professional organizations like the Project Management Institute (PMI), the importance of certification and ethics, and the advancement of project management software

Instructor Notes

Introduction

To motivate students to study project management, you can point out the statistics on pp. 2-3. Although many other professions and fields have declined a lot in recent years, the need for people working in IT and for good IT project managers is still strong.

Also mention the figures in the What Went Wrong section, especially the fact that only 16.2% of information technology projects were considered successful in the 1995 CHAOS study. This number went up to 37% in 2010 (see the What Went Right), but there is still room for improvement

Good project management is very important to making effective use of information technology and people.

What is a Project?

Many people do not understand the basic characteristics of projects. You should focus on the definition of a project as a temporary endeavor undertaken to create a unique product, service, or result. Provide examples of projects to which your students can relate. The attributes of a project should be noted as well. A project:

- Has a unique purpose.
- Is temporary.
- Is developed using progressive elaboration.
- Requires resources (often from various areas).
- Should have a primary sponsor or customer.
- Involves uncertainty.

Describe several projects with which you are familiar. Students like to hear about their instructor's experiences and share their own. You can also discuss the **triple constraint** of project management—balancing scope, time, and cost goals. Use a visual example that will help students remember scope, time, and cost. (I describe a Far Side coffee mug I have that shows Einstein wearing thick spectacles (specs are like the project scope) and looking puzzled at an equation he wrote on a chalkboard. At the end of a complicated math proof is the conclusion that *time = \$*.) Give examples of each constraint on various projects with which you are familiar. Some of these examples should have a stronger emphasis on scope, and others should be more focused on time and cost. The project management course, itself, can be used as an effective example of a project. The time and cost of the course are fairly inflexible, so the main constraint you can control is the scope.

What is Project Management?

There are several important concepts in this section. **Project management** is the application of knowledge, skills, tools, and techniques to project activities in order to meet project requirements. Figure 1-2 provides a great visual framework for discussing this definition. Review the other definitions. Students appreciate seeing a preview of what new tools and techniques they will learn in a class. Show the class examples of a WBS, Gantt chart, network diagram, and earned value chart, which are a few of the tools that are unique to project management.

The Role of the Project Manager

Discuss what project managers do. Review the job descriptions in the text. An interesting activity is to use an online job search tool, such as www.monster.com, to search for project manager job openings in your area. See how many jobs are found, and then review some of the job titles, companies, and job descriptions that are provided.

History of Project Management

Briefly summarize the history of project management and emphasize that many organizations and industries are still struggling to understand and apply good project management to their unique situations.

The Project Management Profession

Students are usually very interested in learning more about career options. Many may not have considered being project managers or their roles as project team members. Highlight the survey results in Table 1-4 listing the importance of project management skills. Invite a guest speaker to come in and discuss what it is like to be a project manager. Many local chapters of PMI are available and members are glad to speak to students about the project management profession. The PMP certification and code of ethics are also important parts of the profession that should be discussed. Students should also be aware of the growth in

project management software products in the past few years. Let them know that they can download a trial version of Project 2010 from microsoft.com/project and learn to use the software with the detailed instructions in Appendix A. They can also join PMI at reduced rates and view free online versions of some of their publications.

Classroom Activities

1. Triple Constraint

Have students form two-person groups to discuss the triple constraint in more detail. One person should explain in his or her own words what the triple constraint means and provide an example of it in a real project. Then assign roles to the students. One student should be the "talker" and the other person the "listener" who will actively listen to his or her teammate, ask questions, take notes, and be ready to share information with the class. After five to ten minutes, ask for volunteers to describe a project they discussed that did not go well and why. Have students explain the scope, time, and cost constraints and how the project fared in each. Then ask for an example of a project that went very well. Continue getting examples as time and interest allow.

2. Project Attributes

Have students form groups of three to four people to relate the attributes of a project to the project management class. Then have them discuss their expectations as major stakeholders in the class. What do they expect to get out of the class? What do they expect from the instructor, their classmates, and themselves in order for the class to be a success? Have each group present their findings, and collect their recorded comments.

3. Project Management Profession and Additional Information

Visit the author's Web site at www.kathyschwalbe.com to see many resources and links related to project management. Visit sites like www.pmi.org and show students how to read samples of their publications for free. Visit other sites to show students all the information available, including the companion Web site for this text. Also show them how to use your school's online resources, if available, to access even more information. Discuss the local job market for project managers.

Troubleshooting Tips

Strong starts are very important in projects and in classes. Show your own enthusiasm for project management and teaching. Take time to have students fill out a survey (a sample is provided at the end of the chapter) and introduce themselves. Include a fun topic to add to general introductions. For example, in addition to having everyone say what their major is, where they work, and so on, have students describe one thing that is unique about them that most people wouldn't know. Other ideas include having students describe their favorite hobby, favorite food, and so on. When introducing yourself, provide your response to the additional introductory question, too. Set a good tone for the entire course, and encourage a lot of participation. Try the above classroom activities or similar ones to get students engaged in the course and to help them meet their classmates.

Also, show students how to access the companion Web site for this text (www.cengagebrain.com). You could set up an account for one of the students (using the

student's access code) and then show them what resources are available on the companion site, such as podcasts, interactive quizzes, lecture slides, games, links to useful sites, etc. Note that if students have used books they can purchase access to the site from www.cengagebrain.com.

Quick Quiz

1. What three knowledge areas comprise the triple constraint of project management?
ANSWER: Scope, time, and cost
2. Name two tools and techniques that are unique to project management.
ANSWER: Project charter, WBS, Gantt chart, network diagram, critical path analysis, cost estimates, earned value management, or any item listed in Chapter 1.
3. Modern project management began with what project?
ANSWER: The Manhattan Project
4. What is the popular designation for people certified as project managers by the Project Management Institute?
ANSWER: PMP (Project Management Professional)
5. What project management certifications can students earn without work experience?
ANSWER: Certified Associate in Project Management (CAPM) from PMI and Project+ from CompTIA. See Appendix B for details.

Discussion Questions

1. Why is the topic of project management getting more attention lately?
2. What do you think about the CHAOS study's definition of a successful project? Do you think there are better definitions of success besides meeting scope, time, and cost goals?
3. Can recent college graduates expect to be project managers right away? What is a typical career path for a project manager?

Key Terms

- best practice — An optimal way recognized by industry to achieve a stated goal or objective
- critical path — The longest path through a network diagram that determines the earliest completion of a project
- enterprise project management software — Software that integrates information from multiple projects to show the status of active, approved, and future projects across an entire organization; also called portfolio project management software
- ethics — A set of principles that guide our decision making based on personal values of what is “right” and “wrong”
- Gantt chart — A standard format for displaying project schedule information by listing project activities and their corresponding start and finish dates in a calendar format
- leader — A person who focuses on long-term goals and big-picture objectives, while inspiring people to reach those goals
- manager — A person who deals with the day-to-day details of meeting specific goals

- portfolio project management software — Software that integrates information from multiple projects to show the status of active, approved, and future projects across an entire organization; also called enterprise project management software
- program — A group of projects managed in a coordinated way to obtain benefits and control not available from managing them individually
- program manager — A person who provides leadership and direction for the project managers heading the projects within a program
- project — A temporary endeavor undertaken to create a unique product, service, or result
- project management — The application of knowledge, skills, tools, and techniques to project activities to meet project requirements
- Project Management Institute (PMI) — An international professional society for project managers
- project management knowledge areas — Project integration management, scope, time, cost, quality, human resource, communications, risk, and procurement management
- Project Management Office (PMO) — An organizational group responsible for coordinating the project management functions throughout an organization
- Project Management Professional (PMP) — Certification provided by PMI that requires documenting project experience and education, agreeing to follow the PMI code of ethics, and passing a comprehensive exam
- project management tools and techniques — Methods available to assist project managers and their teams; some popular time-management tools include Gantt charts, network diagrams, and critical path analysis
- project manager — The person responsible for working with the project sponsor, the project team, and the other people involved in a project to meet project goals
- project portfolio management or portfolio management — When organizations group and manage projects as a portfolio of investments that contribute to the entire enterprise's success
- project sponsor — The person who provides the direction and funding for a project
- stakeholders — People involved in or affected by project activities
- triple constraint — Balancing scope, time, and cost goals

PROJECT MANAGEMENT CLASS SURVEY

Name: _____ E-mail: _____
Major: _____ Minor: _____
Phone: _____ Best way to reach you: _____
Brief job description, if currently working:

What job would you like to be doing in five years?

Extracurricular activities/hobbies:

1. In this class, all students are resources. What are some of your abilities/strengths as they might relate to this class?
2. What are some of your weaknesses or areas you would like to improve?
3. What are you most interested in learning from this class?
4. Are you currently working on a project or have you recently completed one? Please describe the project below.
5. Describe your experience giving presentations and how you feel about public speaking.
6. List any questions or concerns below or on the back of this page. Thanks!

ACADEMIC HONESTY:

I have read and understand the policies regarding academic honesty. I understand how they apply to this course, and I pledge myself to abide by the policies and work to create an atmosphere of academic integrity on the campus.

Signature: _____ Date: _____