Module One: Project Management and the Role of the Project Manager

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New construction projects are a familiar sight in Dubai, UAE

1.01 Learning Outcomes

Module One: Project Management and the Role of the Project Manager

Project management is both an art and a science. To effectively manage projects, practitioners need a unique combination of skills, expertise, and knowledge, to help teams bring their projects to completion in the most productive and efficient way possible. A talented project manager who can employ the concrete tools, techniques, and methodologies—as well as the less-concrete "soft skills"—can be the difference between a successful project and an unmitigated disaster.

This course will help you explore both the theory and the practice necessary to successfully understand and manage projects. As you progress through the course, you'll learn the terminology, processes, and key concepts that are essential to effective project management. You'll explore the five stages of a project's life cycle, and you'll examine important project elements—such as integration management, scheduling, costing, quality, control, risk management, procurement, and stakeholder engagement—that must be monitored, evaluated, and executed throughout a project. You'll also identify the roles that project managers and stakeholders play in developing and managing efficient projects in their organization, to ensure that they will meet requirements and reach a successful conclusion.

Learning Objectives

After completing this module, you should be able to:

1. Explore the selection process and attributes of a successful project manager, team members, and key project stakeholders
2. Describe the methods for maintaining authority, autonomy, and conflict resolution employed by project managers

3. Differentiate between common organizational structures and explain how the structure of an organization can affect project processes and activities
4. Create a visual organizer with project management software

1.02 Getting Started

This assignment does not contain any printable content.

1.04 Introduction to Project Management

Introduction to Project Management

Project Management

Companies run projects to help them achieve their strategic objectives.

But to run efficiently, projects need a framework that minimizes problems and supports and advances the work.

They need processes that ensure results, that communicate progress to interested parties, and that manage potentially disruptive issues.

Enterprises need someone to oversee the entire project, making sure that things run smoothly and that problems are resolved.

In short, they need effective project management to guide their projects to success.

As you begin this course, you'll explore the essential, fundamental aspects of effective project management and begin to see how the efficient management of projects contributes to their successful completion.

You'll learn basic concepts about projects and project management. These are applicable to projects of all sizes and levels of complexity.

You'll explore the five project stages that effective practitioners use to run successful projects:

Initiating, Planning, Executing, Monitoring and Controlling, and Closing

You'll review how a project changes over the course of its life cycle.

And you'll see how specific tools, processes, and techniques can help in running effective projects in the real world.

By understanding these basic project management principles, you'll build a strong foundation that will help you understand how projects can be run efficiently and completed successfully.

1.05 Understanding Projects and Project Management

Understanding Projects and Project Management

Practitioners often talk about completing projects and employing project management, but organizations may define these terms differently, based on their size, complexity, or corporate culture. To ensure that we are defining these terms similarly, let's take a closer look at them before we move forward.

What is a Project?

> A project is a series of carefully planned activities that creates a unique end result. A project is not an ongoing process—each project has a defined beginning and end. There is a specified budget and schedule for the project and each project is designed with a specific output in mind.

Projects are executed within an organizational setting and, as such, must fit into the management structure of the organization. To be of value, projects must fit within both tactical (short-term) and strategic (long-term) corporate goals. Individual projects generally represent only part of the greater whole of an organization's short- or long-term plans. While a project may be important on its own merits, it is not more important than the organization's strategic mission and overall goals.

Video Commentary

What is a Project?

Richard Maltzman

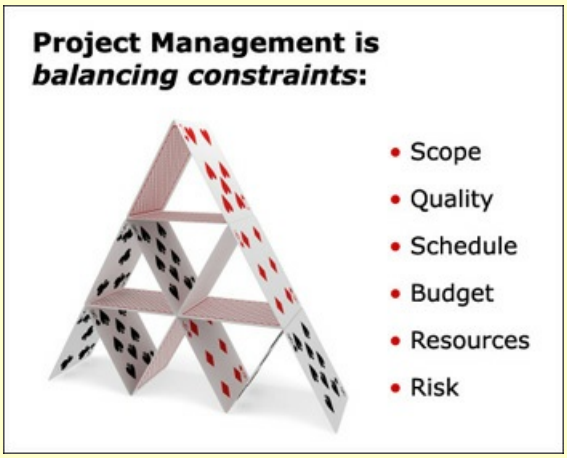
What is a project? A project is effort, usually a team effort, focused on a unique product and by product I mean a new product, literally, or a new service or some kind of outcome which is linked to organizational objectives. This outcome has been at least moderately well-defined and well-described by a sponsor to be delivered at a specific time.

Projects expend a limited amount of resources and they are distinguished from an ongoing operation by virtue of not being repetitive, of not having an unlimited budget, and by having a very well-defined start and finish.

Rich Maltzman, PMP®, is the Learning and Professional Advancement Leader at a major telecom supplier. A contributor to the *PMBOK® Guide*, 4th Edition, he has co-authored PMP® Exam study guides. He is co-founder at EarthPM, LLC, and along with co-founder David Shirley, PMP®, has authored the book, *Green Project Management: Planet, Projects, Profits, and People*, published in September 2010. He received a BSEE from the University of Massachusetts in Amherst and has a graduate degree in industrial engineering from Purdue University.

What is Project Management?

Project management is the application of resources and the administration of knowledge, tools, and skills to meet project objectives.



To be an effective project practitioner, you'll need to recognize that neither time nor other resources are infinite, so they must be managed carefully.

The art of project management is in realizing that a project's constraints are connected and must be addressed together to ensure success. Traditionally, project management practitioners have talked of a triple constraint, to guarantee that the interplay of scope, time, and cost are taken into consideration when projects are managed. More recently, additional constraints—including quality, resources, risk, and other project parameters—have been included in this list to broaden the practitioner's view of factors that need to be closely integrated and monitored to meet project objectives.

Changing one constraint will most likely affect other constraints, which could benefit or hinder the progress of your project.

Video Commentary

Project Management: An Overview

Richard Maltzman

What is project management? Project management is the art and science of animating--and this is a word I chose carefully, it's a word that combines motivation and direction--the project team to deliver project objectives such that

they meet the sponsor's requirements while maintaining the team's morale and sanity. Two huge and very interrelated components of project management effort are the leadership provided by the project practitioner in facilitating communications and understanding and managing risk.

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What is a Project Manager?

A project manager is the person assigned by the appropriate entities to successfully guide the project to meet its objectives. This person is ultimately responsible for all aspects of the project as he or she oversees each project stage. The project manager has also been authorized to apply the necessary resources to ensure project completion.

An effective project manager knows what role his or her project plays in the broader organizational context. Each project will be subject to prioritization within its organization; the forces (problems, opportunities, and requirements) that drive the organization will help determine the investment, timing, and emphasis that will be placed on a given project.

Video Commentary

The Role of the Project Manager

Rich Maltzman

So what's the role of the project manager and how is it changing? Or is it changing? I think in general, it isn't changing. A project manager is the conductor of the orchestra. In some cases, they may play an instrument and mentor people as to how to do certain technical portions of the job, but you really want to avoid that. The project manager is a manager. They get work done through people. They don't necessarily have to be doing that work, in fact should not be doing that work as much as possible themselves. They should be focusing on the overall project's goals and objectives and their attainment, and importantly, how those tasks and goals and objectives are tied to the program, the portfolio, and the business' objectives.

There've been some slight changes, at least in the wording, based on the role delineation study that's been done, that reinforces the idea that project managers are not necessarily those who select projects. Selecting projects could be something that's done by a business manager or program or portfolio manager. The project manager is handed the project, hopefully with all of the surrounding context as to how it fits into the portfolio. The key, though, is that the project manager does draw quite of a bit of authority from that connectivity to programs and portfolios and most importantly to what the business or organization is all about. So, one of the main jobs of this conductor is to show how important this particular violin solo is to the concert and how important the concert is to the success of the orchestra and so forth. That's the source of power that you should be taking advantage of.

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There are several other definitions that we should cover, to familiarize you with the terms we'll use throughout this course.

Term	Definition
Project Life Cycle	The series of stages (Initiating, Planning, Executing, Monitoring and Controlling, and Closing) needed to complete a project
Scope	An explanation of the work included in the project
Baseline	A tool used to compare expected performance to actual results. Baselines are often created to measure a project's scope, cost, and schedule performance.
Budget	An aggregation of the expected costs to complete the project
Charter	A foundational document that sets the initial expectations for the project
Program	A group of projects that, because they are related in some way, can be managed together, to reap benefits that would not be available if the projects were managed separately
Portfolio	A group of projects and/or programs that are undertaken to meet an organization's strategic objectives

1.06 Exercise: Seven Strikes Game - Project Management Basics

This assignment does not contain any printable content.

1.07 Project Success Factors

Project Success Factors

Factors that Contribute to Project Success

There are many factors that help determine whether a project will succeed. Projects need to be well-understood and well-supported by the organization that administers them. The project's objectives or goals must be clearly stated, and team members need to be empowered to reach these goals. Team members need to communicate and work well together, and they need to know what is expected of them.

The table below contains some general ideas about why some projects fail and why some projects succeed.

Why do some projects succeed?	Why do some projects fail?
1. executive level support and financial backing 2. a well-defined project charter 3. strong project management 4. working chemistry among team players 5. good decision-making structure 6. effective communication 7. alignment of team member goals	1. lack of alignment to organizational objectives 2. poorly defined scope 3. unrealistic expectations 4. lack of executive support and financial backing 5. insufficient project management 6. team member personality conflicts 7. organizational politics

1.07.1 Exercise: Why Do Projects Fail? Game

This assignment does not contain any printable content.

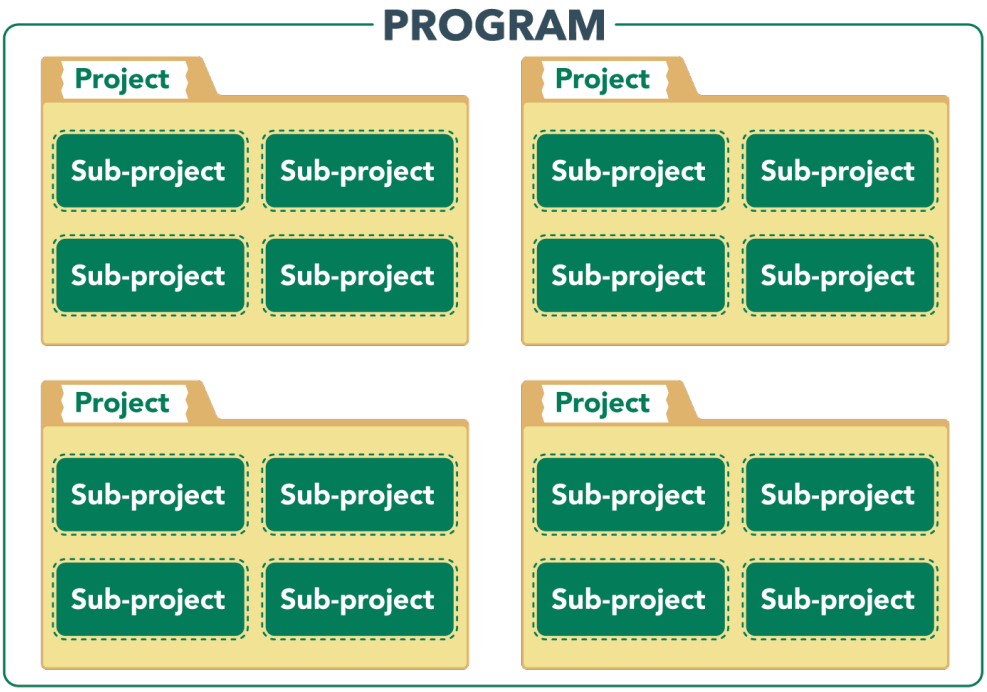
1.08 Seeing the Bigger Picture

Seeing the Bigger Picture

To increase the likelihood of success, projects may be compiled into larger groups and managed in a coordinated way. Because individual projects generally represent only part of the greater whole of the organization's short- or long-term goals, projects must fit within both tactical (short-term) and strategic (long-term) corporate goals, and should be aligned with organizational strategy to increase the business value of the organization. The alignment of projects, programs, and portfolios with organizational strategies helps to ensure their success and to allow the organization to realize its objectives. Project practitioners should continually monitor their organizations' strategic plans, and if corporate strategies change, they should alert executives and project sponsors to suggest that projects be realigned to the new organizational direction.

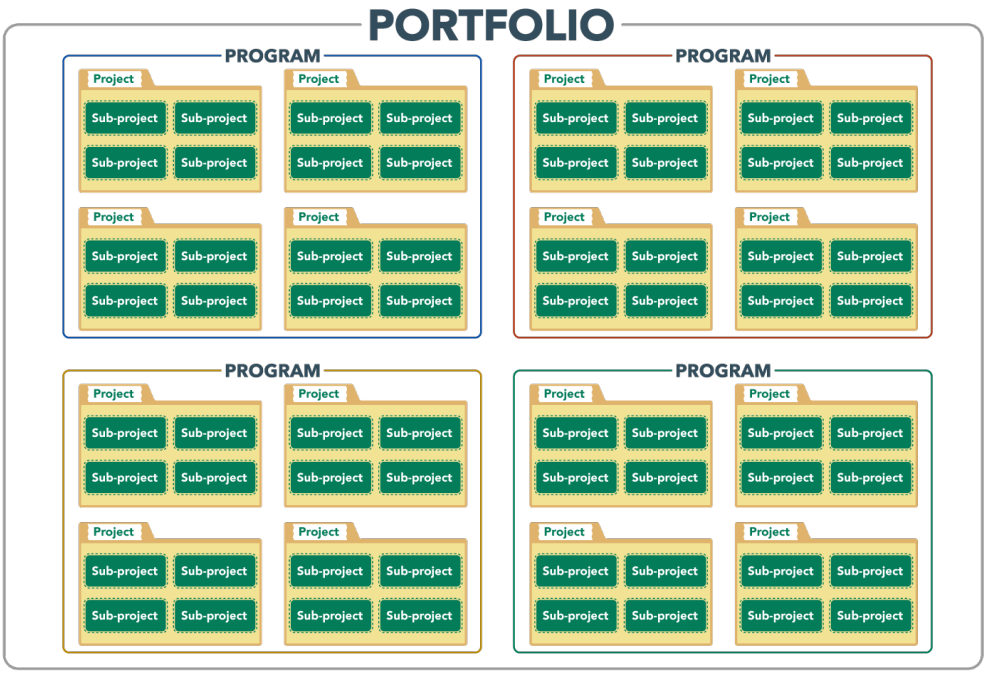
Programs

When projects are grouped together in a coordinated way (because they have similar attributes or goals), these groups are often characterized as programs. An organization might have several projects that are separately managed but that share the intent of advancing a certain goal, or program, of the organization. That goal might be to minimize the organization's environmental impact, in which case the program might be broken down into individual projects (or even into sub-projects)—one project might assess the current environmental impact of the organization; another might assess the current and projected impacts of competing organizations; while still another project might include testing new methods of manufacture.



Portfolios

Programs can then be grouped together into an organization's portfolio of projects. The collected programs only need to be related in that they meet the strategic business objectives of the organization (like increasing market share, optimizing the use of company resources, or increasing sustainability). The centralized management of this collection of programs or projects in an organization is called portfolio management.



1.09 Organizational Structures

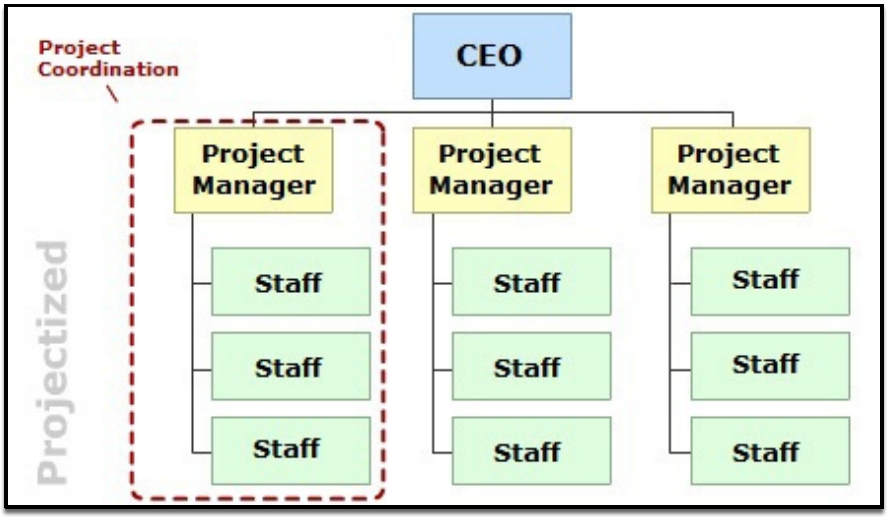
Organizational Structures

Project management success often hinges on the ability of project practitioners to function within an organization's existing structure. The reporting structures and authority channels inherent in certain organizational structures can dramatically enhance —or hinder—the management of projects.

Several organizational structures are described below, along with the effect that each environment has on how projects are managed.

Projectized Organizations

In a projectized organization (or a project-based organization), project practitioners and staff are arranged in "self-contained" units that report directly to a project manager. In a projectized organization, authority may be spread out, and roles and responsibilities are often shared by project team members. Because project staff report directly to a project manager, it is in this type of organization that the project manager has the most authority.



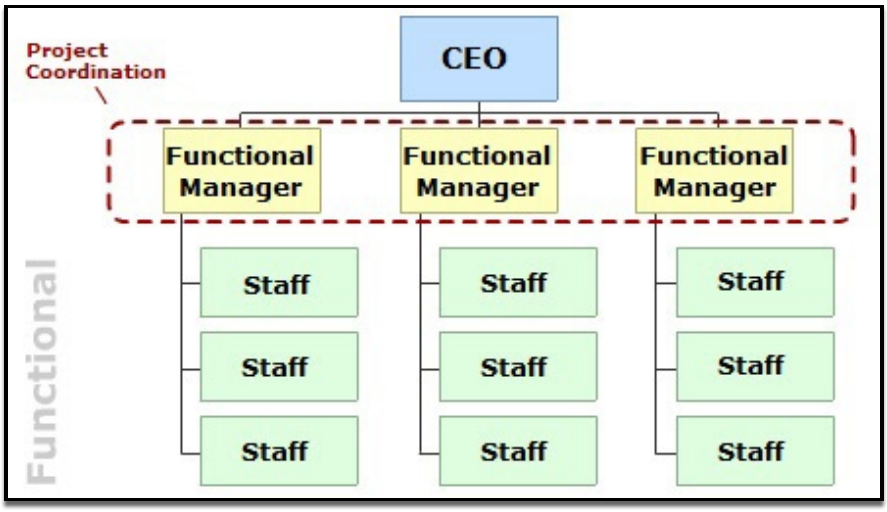
Functional Organizations

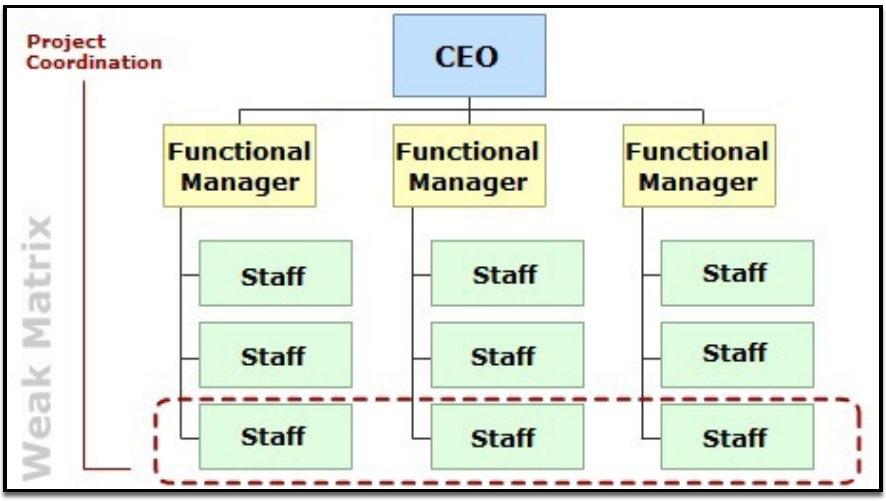
Functional organizations contain a top-down and linear structure. This means that projects are often located within a function like manufacturing and that project managers sit within that function, report to a functional head, and have limited authority. This organization is the most hierarchical, and functional managers or department heads have the most authority in functional organizations.

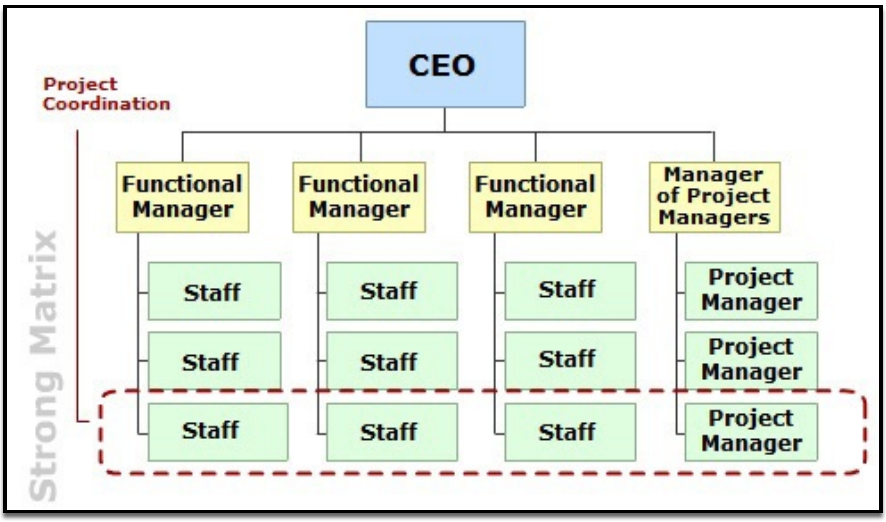
Matrix Organizations

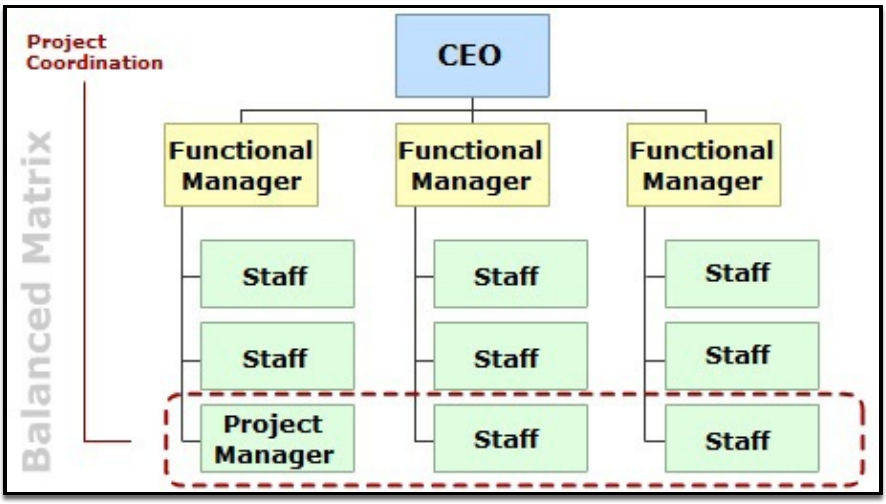
Often organizations are a blend of the structures listed above so they are referred to as matrix organizations. A matrix organization can further be described as operating with a weak, balanced, or strong matrix. A weak matrix organization has

many aspects of a functional organization: often, the project manager acts as a project coordinator or expeditor with limited authority, and team members spend more time on the tasks in their functional departments than on project work. A strong matrix organization has many aspects of a projectized organization: the project manager has considerable independence and authority, and team members spend more of their time working directly on projects. In a balanced matrix, the role of the project manager is still critical, but his or her power over a project and its budget are limited.









A composite organization tends to share many characteristics of a functional organization, although it also contains special project teams that operate in a project-based way: these project teams will often work under their own set of operating procedures and have their own full-time staff culled from different functional departments.

Video Commentary

Organizational Structures and the Project Practitioner's Role

Richard Maltzman

How the organizational structure affects the project practitioner's role. The project practitioner's role, and that of the team, profoundly changes depending on their organizational environment. In a projectized world where the enterprise is actually organized around projects such as an advertising agency or an architectural firm, the project practitioner has more power by design, often having resources reporting to them directly and carrying "high-falutin" titles like Project Director.

The other extreme is a traditional functional organization, where the project team is built along solid, vertical silo boundaries. Here the project practitioner may need to beg, borrow, and steal resources, requiring a stronger political savvy.

The matrix organization is in between these two extremes.

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1.10 Organizational Assets and Environmental Factors

Organizational Assets and Environmental Factors

Projects do not operate in a vacuum; they are susceptible to the many factors around them. In addition, they should capitalize on knowledge gained from past projects and should learn from the success and mistakes of those that have preceded them. These surrounding enterprise environmental factors should be accounted for, and the internal organizational process assets should be leveraged to ensure successful project completion.

Enterprise Environmental Factors

Enterprise environmental factors include any or all *external* environmental factors as well as all *internal* organizational environmental factors that may influence the project's success. External factors can include governmental and industry standards, marketplace conditions, commercial databases, and the political climate. Internal factors can include organizational culture, structure, infrastructure, human resources, personnel administration, governance policies, and project management systems or software.

These factors may affect any or all of the enterprises involved in the project so a thorough investigation should be conducted to ensure project success.

Organizational Process Assets

Organizational process assets include any or all process-related assets (from any or all of the organizations involved in the project) that are or can be used to influence the project's success. These process assets include formal and informal plans, policies, and procedures. The process assets also include an organization's knowledge bases such as lessons learned and historical information.

One such asset might be the completed schedules from a similar, recently completed project. Another example might be a financial database that can be used either to find out information on a particular project or to draw conclusions about all the projects of a certain type.

A particularly helpful organizational process asset would be a completed project management plan from a successfully completed project, to use as a "template" or "sample" to prepare for an upcoming project.

The project management plan is a living document that helps project practitioners coordinate and execute the project. The project management plan has a number of subsidiary plans, including the scope management plan, the requirements management plan, the cost management plan, the schedule management plan, the quality management plan, the human resource management plan, the risk management plan, the process improvement plan, the communications management plan, the procurement management plan, and the stakeholder management plan.

It may also include a milestone list and milestone schedule, the resource list and resource calendar, the risk register and risk breakdown structure, the project scope statement, the work breakdown structure, the change control systems, and the cost, quality, and schedule baselines.

Any resource used to move a project forward more smoothly—including the project management plan—should be subject to progressive elaboration and rolling wave planning. For example, the technical requirements for a product might shift as customer feedback is received. To allow for response to such customer input (sometimes called the Voice of the Customer), a project management system must be flexible, not rigid.

Project management plans will also need to take into account the enterprise environmental factors of all other organizations involved in the project.

1.11 The Project Management Office

The Project Management Office

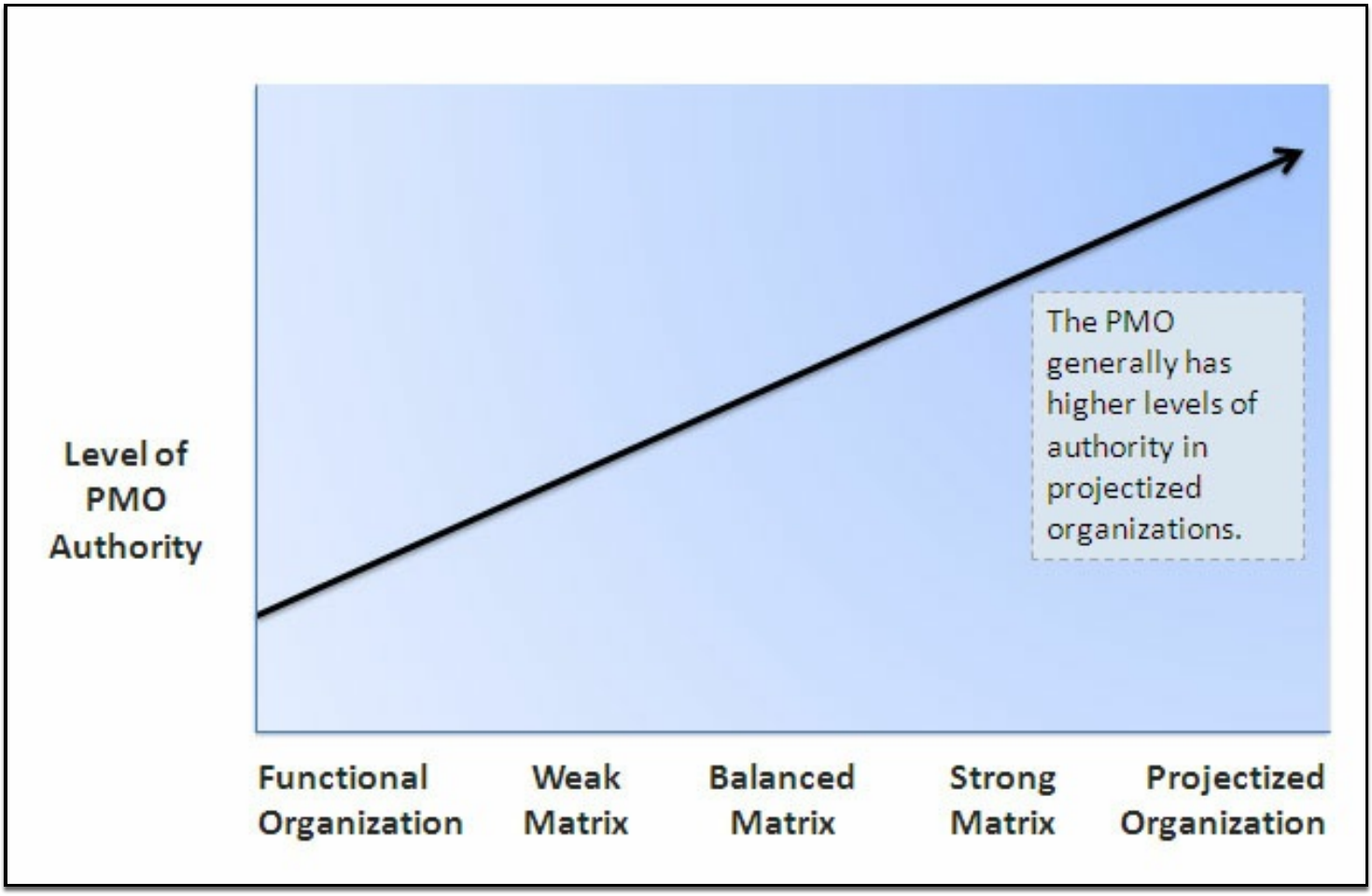
Project Management Office (PMO)

So who manages a project? The easy answer would be that project managers manage projects. However, there are often many more people involved in the management of a project than just the project manager.

In some organizations, a project management office (PMO) is created to coordinate and oversee project activities. The PMO may be tasked with establishing project priorities, managing the project portfolio, allocating project resources, providing plans or forecasts of performance, and/or supporting the project team in its execution.

A PMO can exist in any organizational structure, whether it is a functional organization, a matrix organization, or a projectized organization. As shown in the figure below, the authority of the PMO increases as the organizational structure moves from a

specialty-based (functional) organization to a project-based (projectized) one.



Types of PMOs

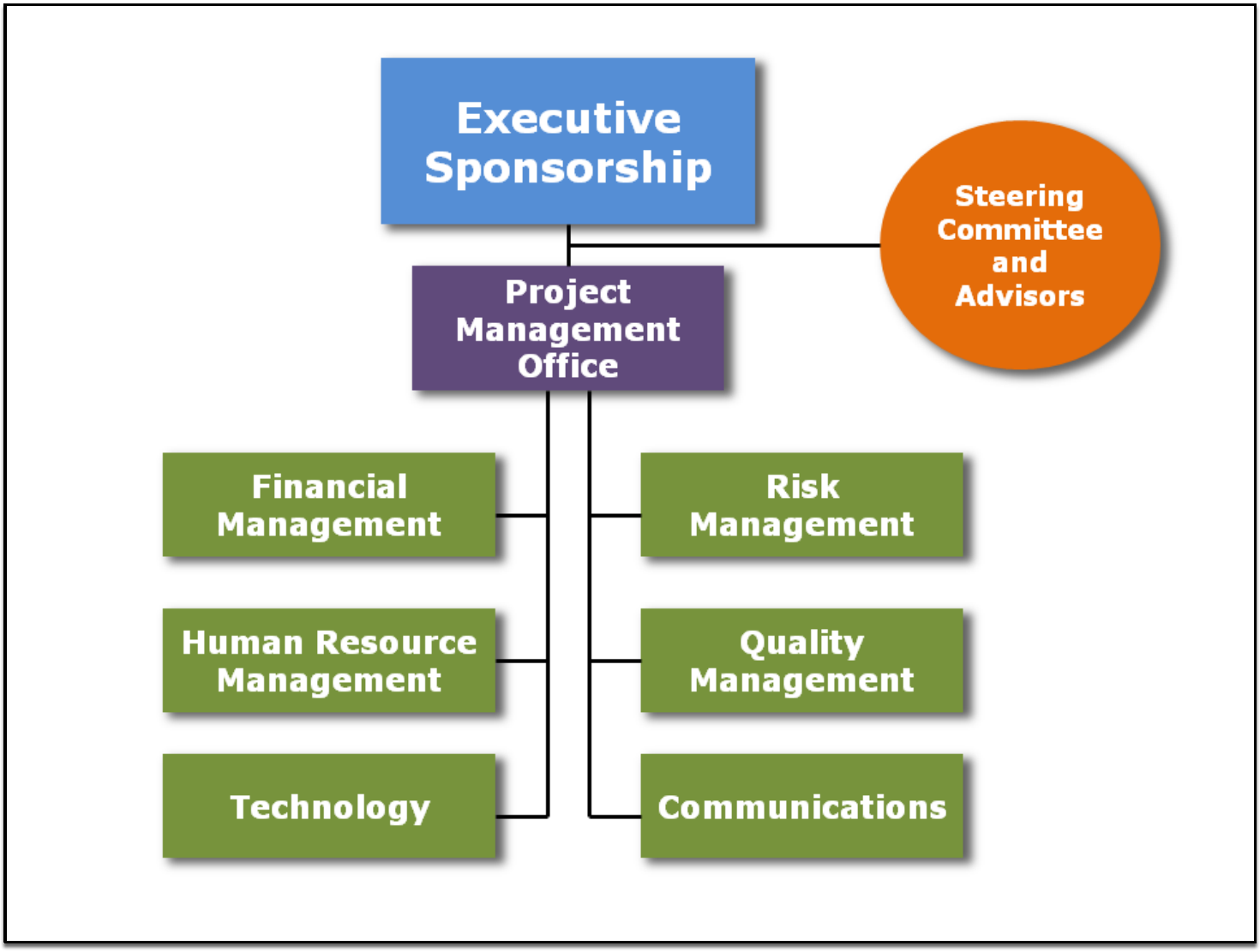
A project management office may be designated as *supportive*, *controlling*, or *directive*, depending on the degree of control and influence allowed by the performing organization and project stakeholders.

Project Management Offices			
PMO Type	**Role**	**Common Activities**	**Degree of Control**
Supportive	Consultant	• Provides templates and training to project participants • Serves as a project repository for project information • Coordinates and disseminates best practices and lessons learned from other projects	Low
Controlling	Compliance group	• Specifies tools, forms, templates, methodologies, and framework to be used on projects • Ensures conformity to project regulations and governance mandates	Moderate
Directive	Manager	• Provides direct management of project activities	High

Regardless of type, the PMO will generally play a large part in developing the project management system to help oversee the project. Systems do not have to be as complex as the word might imply; systems are just integrated pieces designed for a common goal, such as the production of goods (products made for sale). For example, a tool such as a computer application is one part of a system that helps move a project forward more smoothly.

Where Does the PMO Fit within the Organizational Hierarchy?

Notice, in the organizational chart below, that the PMO resides beneath the executive sponsorship and maintains communication with advisors but can also act as a center of expertise for the various departments collaborating on a project.



This illustrates the need to ensure that the PMO continues to serve the "lower" branches of the organizational chart while still keeping an eye on satisfying the requests and requirements of the "upper" levels of the chart as well.

Video Commentary

The PMO: Benefits and Drawbacks

Richard Maltzman

What are the benefits and drawbacks of a PMO--a project or program management office? The benefits are: a higher morale, attention to discipline, training focused on project managers, a certain level of consistency, a sense of community, shared resources, and availability of mentoring for project managers--and this is all if the PMO is organized and operated well.

Some of the drawbacks, and these are especially exaggerated if it's not done well, is there is less creativity because there is more rigor, there's more overhead because you have people devoted specifically to project management as a discipline, and there could be--again if it's done not well--a feeling of too much central control and too much overhead centered at a central organization.

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1.12 Stakeholders

Stakeholders

There are many people who can influence and/or be influenced by a project. Collectively, these people are known as *stakeholders*.

A stakeholder is an individual, group, or organization (e.g., customer, sponsor, performing organization, or the public) who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project. Stakeholder interests may be positively or negatively affected by execution or completion of the project. A stakeholder may also exert influence over the project and its deliverables.

Examples of some of the parties who might be considered stakeholders of a project include:

- supervisors
- shareholders
- the government
- senior executives
- suppliers
- trade associations
- co-workers
- lenders
- the media
- customers
- analysts
- the public
- prospective clients
- future recruits
- the community
- sponsors
- the project management team
- the project manager

Stakeholders can be divided into two groups: positive stakeholders, who will benefit from the project's success, and negative stakeholders, who view a negative outcome as a success.

Because stakeholders may be able to exert influence over a project or its results, their interests should be carefully monitored to ensure positive project conclusions.

Video Commentary

International Stakeholders

Gina Abudi

When considering who your stakeholders are, people often forget how broad a group that really might be. So, for example, you may have international stakeholders. A big challenge for project managers today is managing the expectations and communicating with international stakeholders in particular. Projects are so much more complex, and projects today, even sometimes in the smallest organization, really have a global reach to them. And understanding the variety of cultures that you're working with helps you to interact effectively with stakeholders from other nationalities.

And a key thing to remember is that not all international stakeholders are located out of the country. Within the United States alone, you may have individuals who are located

in the US, but may have been raised or born outside of the US or have worked themselves extensively in other countries. Those are effectively international stakeholders too, and that should be kept in mind. Understanding where they've come from, their cultural identity, how they work with others, building relationships with them helps you improve how you work with them and better communicate with them.

Gina Abudi is President of Abudi Consulting Group, LLC. Gina presents at various conferences, forums, and corporate events—including the PMI® Global Congress—on developing a project management best practice. She was honored as one of the Power 50 from PMI®. She has served on the PM Summit/BA World Advisory Board and has served as Chair of the PMI® Global Corporate Council Leadership Team. Gina received her MBA from Simmons Graduate School of Management and is President of the PMI® Mass Bay Chapter Board of Directors.

The Project Team

One very important subgroup of stakeholders includes the people who are responsible for the successful completion of a project–namely, the project team.

A project team may include the following people:

- Project staff: the people who do the work of the project
- Project management staff: the people who manage the work of the project
- Supporting experts: the people who help create and develop the project management plan
- Sellers: the vendors, contractors, and suppliers who help create the project deliverables
- Users and customer representatives: the people who advise the team and accept the project deliverables
- Business partners: external collaborators who fulfill a specific role, provide special expertise, or have some special relationship with the performing organization

Members of the project team may be dedicated full-time to the project or may be part-time participants. (If team members are part-time participants, they may be shared with other projects or with functional departments within an organization.) In some cases, projects may include a combination of full-time dedicated participants and part-time team members, working together as needed to fulfill project obligations.

Project teams may be co-located or may exist as a virtual team, depending on project needs and the geographic distribution of skilled contributors. If a virtual configuration is necessary, project managers should take special care to ensure proper communication and interaction among participants; additional tools may be needed to ensure satisfactory team interaction, and accommodations may have to be made to account for cultural, time zone, and language differences.

Stakeholder Engagement and Management

Stakeholders can make or break a project. For example, a quality-assurance director who has not actively been following a project may suddenly find his department over-extended when asked to quickly assess the project's performance; because he has not been actively engaged in the project, he may become angry about the unexpected work and actively resist or inhibit project progress. Or a financial officer who has little interest in a project may simply be uninformed about its strategic value to the organization, and so in meetings with a CEO, may treat the project as a budget line item that should be scratched off the books. To avoid problems like these, it is important for project managers to clearly identify all stakeholders, ensure effective and ongoing communication with them, and monitor interactions to ensure that project objectives are understood and appreciated.

Stakeholders should be engaged throughout the project and stakeholder engagement should be carefully managed and nurtured to ensure the project meets its objectives to the satisfaction of all involved. Generally, stakeholders who are respected and kept informed about a project will be the most supportive of it. Those who are ignored or forgotten could negatively impact the project and quickly derail its progress if their needs are not met.

1.12.1 Stakeholder Prioritization

Stakeholder Prioritization

Video Commentary

Prioritizing and Categorizing Stakeholders

Richard Maltzman

So why do we categorize and prioritize stakeholders? Well, categorizing helps identify. Just the act of categorization helps identify stakeholders. By looking for stakeholders in categories, we may turn up some we hadn't thought of before. For example, looking at the environmental category could turn up regulatory agencies or citizens' groups we may not have otherwise identified. Identification, you can see, is critical. Unidentified stakeholders, like unidentified risks, go untreated. In fact, there is a strong connection between stakeholders and risk. Stakeholders bring risk--both threat and opportunity--to the table and that's why prioritization is also important. With limited resources as we have in a project, we need to apportion our interactions carefully focusing first on the most impactful stakeholders.

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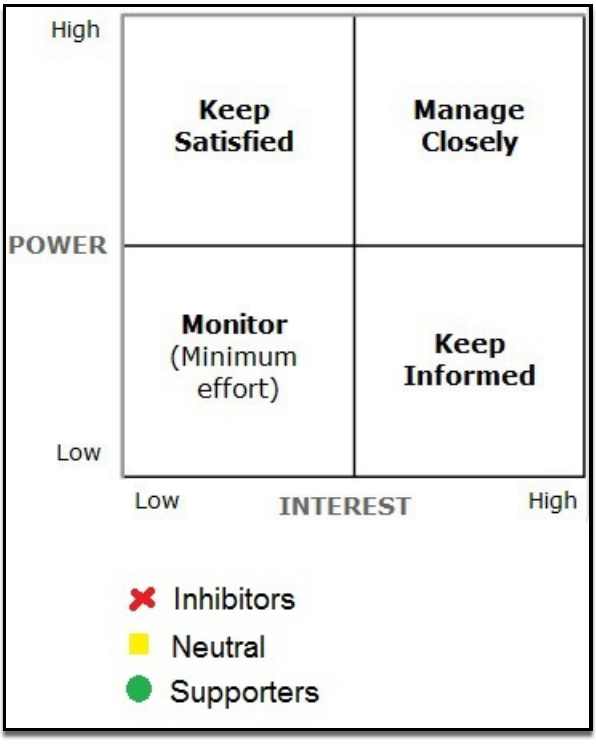
To run a project effectively, project practitioners must identify key stakeholders and consider their impact on the project. If a project leader or project manager does not identify and consult with a high-power/high-interest stakeholder early in the process, he or she may be forced to respond to potentially project-changing suggestions late in the process, threatening project delay and budgetary overages. Not adequately identifying and managing around negative stakeholders, who may benefit from the project's failure, may also endanger the project. For example, a project manager must recognize that competing departments or organizations may not provide objective information or input, and/or may seek to delay or block the project.

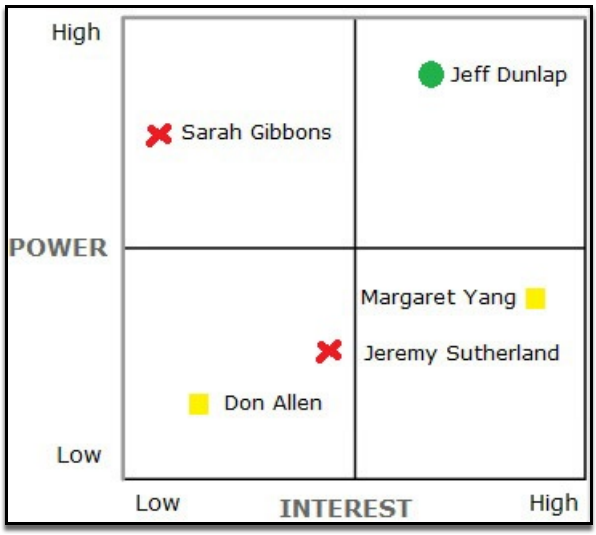
Power/Attitude/Interest Grid

You should have a clear understanding of how your stakeholders feel about your project and how and when to communicate most effectively with them. Engaging stakeholders in a conversation will help you gauge a number of factors. For instance, how emotional are they about the outcome of the project? How much information do they want from you? Are they motivated by a financial element of the project? Does their opinion influence any other stakeholders? Once you have a handle on stakeholder opinions, you can use a priorities grid (like the one shown here) to summarize how best to proceed. The easiest way to organize stakeholder priorities is to create a code for each type of stakeholder. The code can use colors or shapes or both. For instance, inhibitor stakeholders can be represented by a red X, neutral stakeholders can be represented by yellow squares, and supporters can be represented by green circles.



In the stakeholder power and interest chart to the right, Jeff is a supporter of the project and has a lot of interest and power. Sarah and Jeremy are blockers, and both need monitoring. Considering Sarah's power, project leaders should be concerned

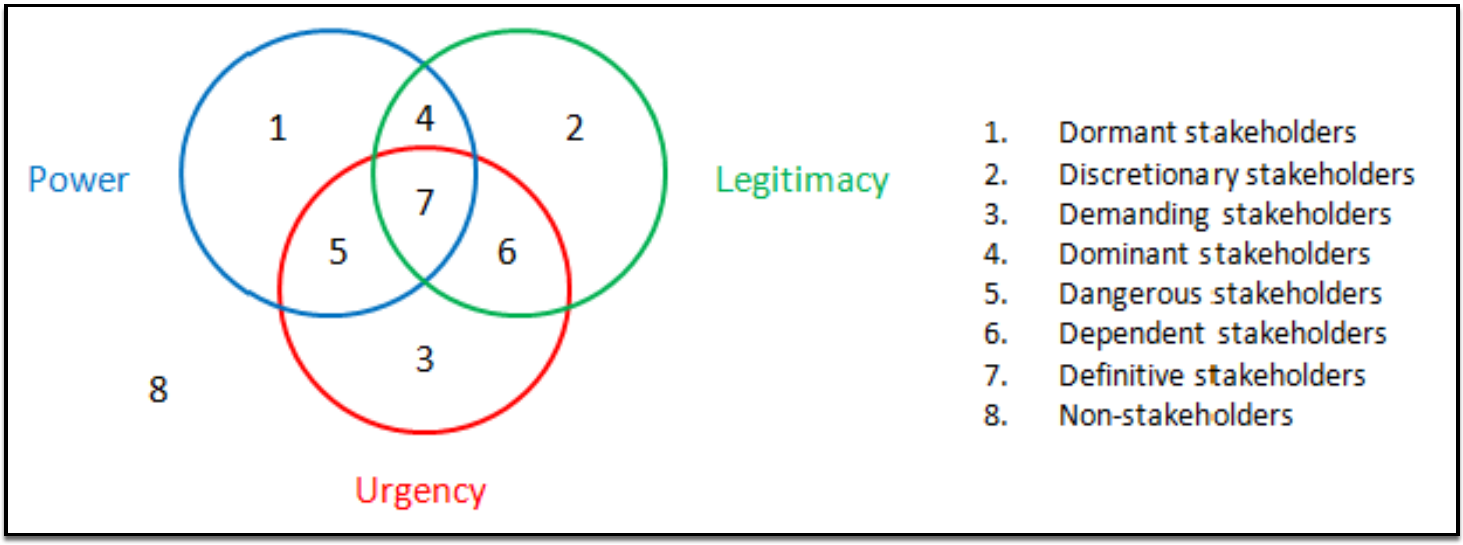
about her influences and should take steps toward keeping her satisfied and informed. Don and Margaret are neutral stakeholders but because Margaret has shown high interest in the project, it would be best to be proactive and keep her informed about the project, to avoid the potential interruptions that may occur as she looks for project information.



Salience Models

A salience model is another tool project practitioners can use to rank and prioritize stakeholders along three dimensions—their power, the urgency of their need, and their legitimacy of involvement.

Salience models are usually depicted as Venn diagrams, with seven zones spread across three intersecting circles. Those stakeholders who fall into the intersecting areas of the circles need to be more closely monitored and their needs satisfied if the project is to be considered a success. Those individuals or groups who fall outside of the circles in the diagram are considered non-stakeholders—investing time and/or resources on this group will not result in improvements or project success.



Stakeholders in zone 7 (the central zone) are considered critical stakeholders—these people (or organizations) have definitive power, legitimacy, and urgency. Zone 7 stakeholders have a vested interest in the project, place high demands upon it, and have the power to authorize its progress or to halt it altogether; as such, they should be a high priority for project teams and should be actively monitored and engaged to help the project meet its objectives. Stakeholders in zone 5 have both power and urgency; whether or not they are legitimately stakeholders in the project, such stakeholders must be satisfied as to its value and progress.

1.12.2 Exercise: Salience Model

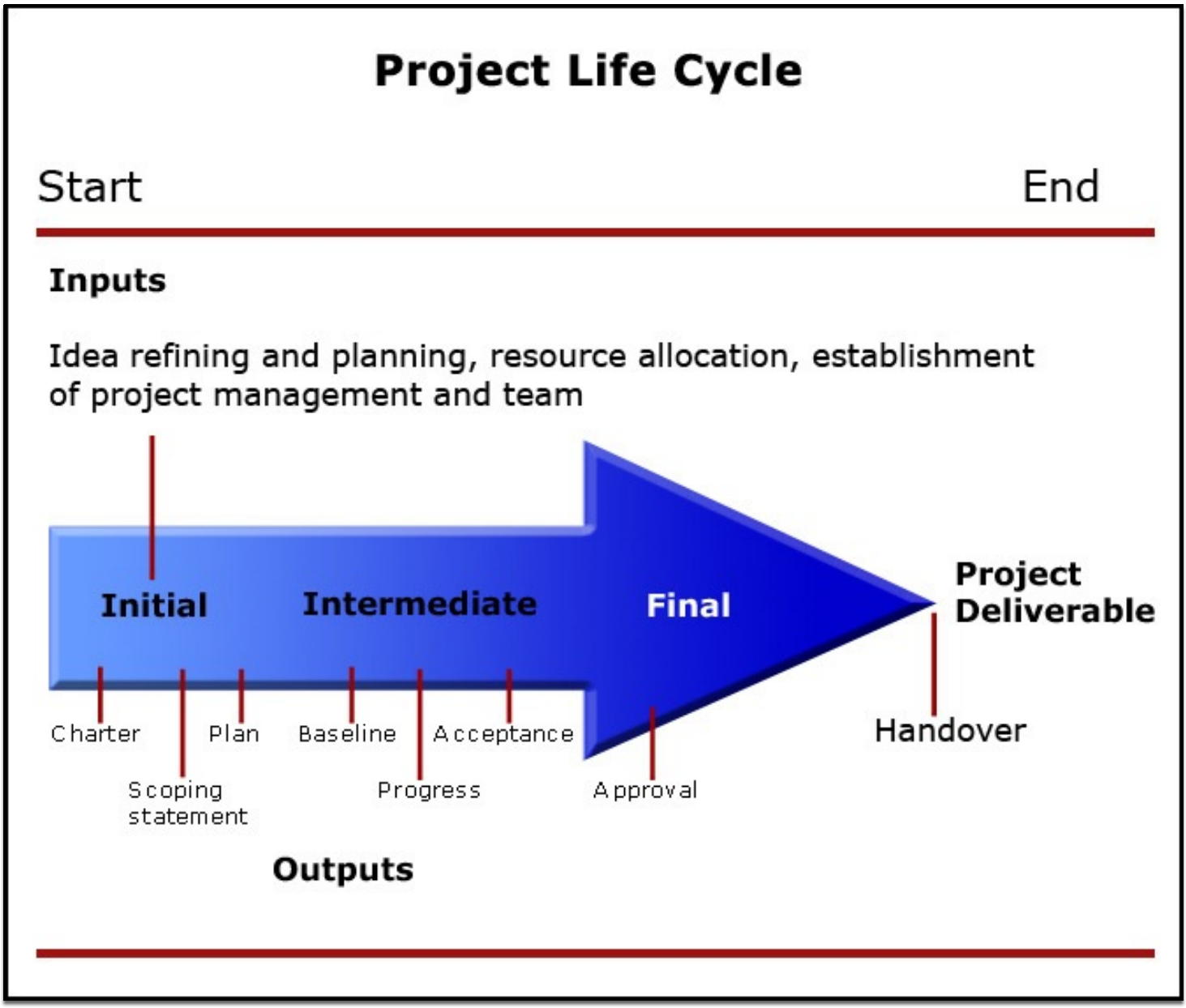
This assignment does not contain any printable content.

1.13 The Project Life Cycle

The Project Life Cycle

The Project Life Cycle and Project Governance

Project practitioners will need to understand the project life cycle to guide their project with appropriate governance. Given the constraints defined for the project, project governance will require that they provide for the creation of certain outcomes or outputs, as outlined in the illustration below.



The governance provided will help define specific solutions for the following variables in each project:

- Each stage's technical work
- The outcomes or deliverables due to the customer or sponsor
- How deliverables will be assessed and reviewed
- Who is involved in each stage
- How each stage is controlled

Project Life Cycle Approaches

Several alternative life cycle approaches can be used to guide projects to their completion. These alternatives can be placed on a continuum, with a predictive approach at one end of the spectrum and an adaptive approach on the other.

Predictive Life Cycles

In a predictive life cycle approach, a comprehensive plan is created at the beginning of a project and any changes to the plan are carefully evaluated and controlled. (Although an extensive plan is developed at project initiation, rolling wave planning and progressive elaboration are often employed to assist in project execution.) Scope, time, and cost estimates are determined early in project plan development, and a series of sequential stages are initiated, executed, and monitored to complete project objectives.

Predictive cycles tend to be described as "Waterfall" approaches because once a stage is complete, practitioners tend not to revisit the unique activities in that stage again; this is similar to the idea that, once water that travels over a waterfall, it is difficult to bring back uphill.

Predictive approaches are frequently used when project deliverables are well-understood or when deliverables need to be completely finished before they can be used by stakeholders.

Iterative and Incremental Life Cycles

Iterative life cycles and incremental life cycles are often described as "mini-Waterfall" approaches—practitioners using these approaches run through all project stages sequentially but may repeat stages several times to add enhancements to a product or service under development. A rudimentary vision of the finished product is created at the project's inception but scope details are delayed until the beginning of each iteration. Changes to project scope continue to be controlled, limiting the modifications allowed during project execution.

Iterative and incremental life cycles are often used in projects with changing scope (especially large or complex projects) and in projects where interim deliverables can be developed that stakeholders may be able to use as finished products.

Adaptive Life Cycles

An adaptive life cycle is similar to an iterative and incremental cycle in that it enhances products or services incrementally but does so in very short iterations of fixed time and/or cost.

In an adaptive life cycle, an initial high-level list of requirements is developed by stakeholders, but then the team is allowed to choose which requirements to work on in each iteration. Stakeholders are continuously involved in the refinement of requirements and the review of deliverables, and changes are embraced as indicators of stakeholders' up-to-the-moment needs. Teams utilizing adaptive life cycle approaches tend to employ Agile methodologies because these techniques allow team members to adapt quickly to changing customer requirements without completely disrupting their project work.

Adaptive approaches are particularly useful in business environments where customer requests change rapidly, when the entire scope of a project is difficult to define up front, or when deliverables can be created that can be used by customers before products are completely finished.

Note: The project life cycle depicted in the graphic above can still be used to illustrate Agile or adaptive life cycles; it would just be modified to include different outputs and would happen in shorter iterations and time frames.

1.14 Project Stages

Project Stages

Because all projects are different, there is no standard way to manage a project. However, projects do have certain stages in common. Identifying and naming these project stages makes it possible to discuss the accumulated knowledge of countless project managers and practitioners.

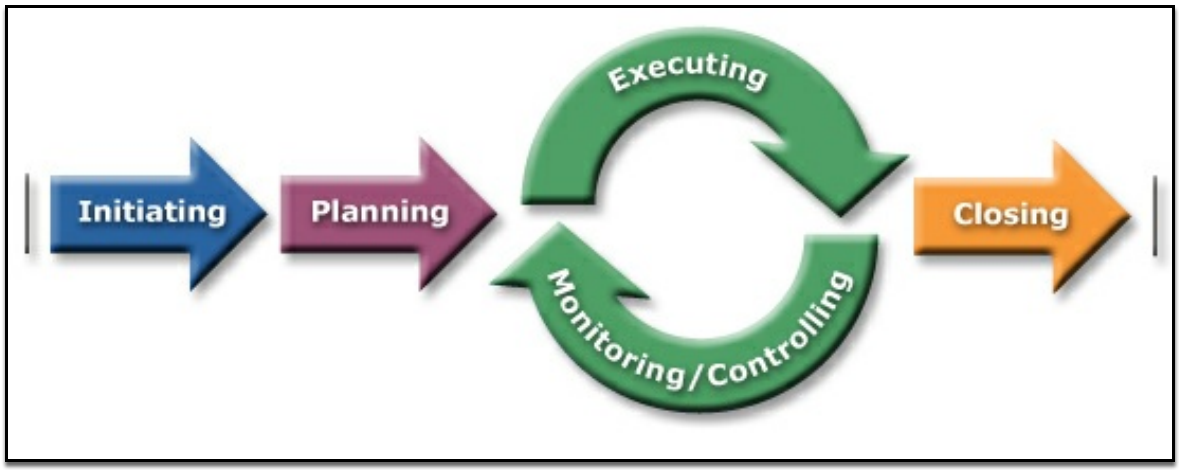
So what exactly is a project stage? For the purposes of this course, we will say that a project stage is a related group of activities that the project team must perform to reach a predetermined set of results, such as the creation of a deliverable.

The Five Project Stages

Project Stages
Initiating Stage: The part of the project that focuses on defining what the project will attempt to accomplish
Planning Stage: The part of the project where the project manager and project team plan the work that will help the project achieve its objectives

Executing Stage: The part of the project where the "actual work" is done
Monitoring and Controlling Stage: The part of the project where work is compared to expectations to ensure it is proceeding as expected
Closing Stage: The part of the project where the project manager and project team finalize all activities and formally close the project

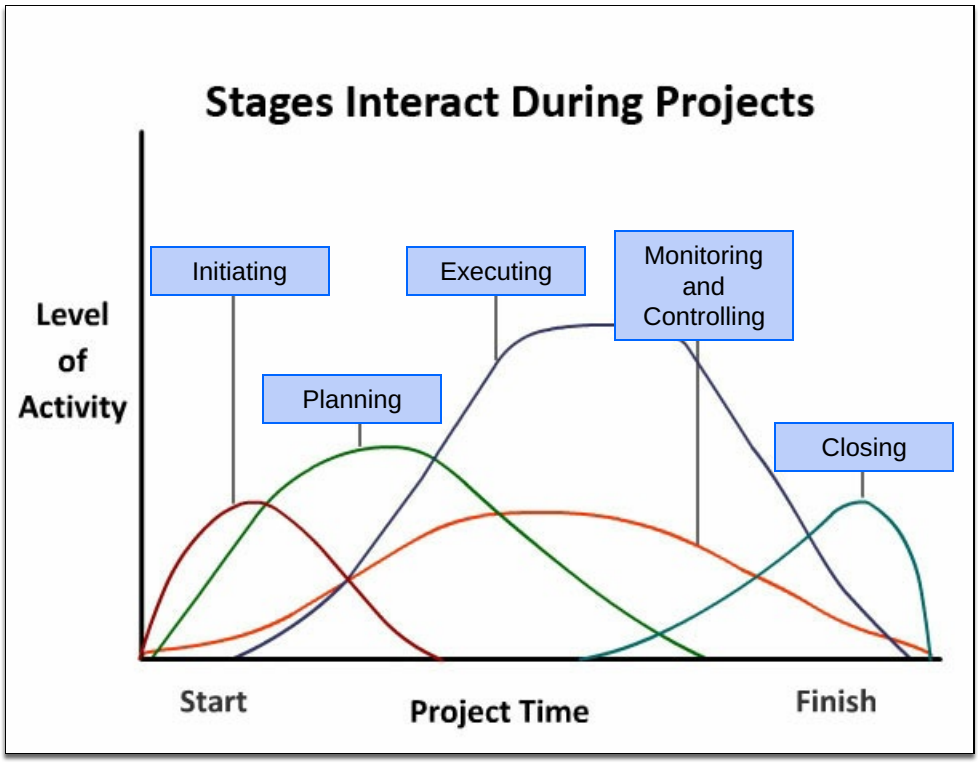
With each of these stages, the completion of a deliverable (or deliverables) marks the end of the current stage, allowing you to proceed to the next stage.



The Interaction of Project Stages

Although the stages must be performed in some sequence, they usually overlap and iterate. The outputs for one stage will become the input for another.

The interactive graph below shows the pattern of the five stages over the duration of a project. Click on each stage to learn how that stage fits into the life cycle of the project. The chart and information emphasizes the overlapping nature of the stages and the manner in which the output of some stages becomes the input for others.



Initiating

The Initiating stage launches a project. It is often performed by an organization or program—like a sponsor or senior

management—that is outside of the project. Feasibility studies may be conducted. Documentation that outlines the project's objectives and how they relate to those of the organization at large should emerge. And the resources needed for the project are identified.

A project manager is assigned and any applicable organizational assets, such as procedures, guidelines, standards, and templates used on previous projects, will be assessed for their relevancy and usefulness to the project.

The project charter is approved, signaling the formal authorization of the project.

Planning

Once a project is formally authorized and its scope and objectives are broadly defined, a detailed breakdown of the project will need to be created.

This breakdown begins with a project plan. The project plan is a summary or detailed explanation of:

- The project life cycle
- The processes that will be used and how they will be used
- The tools and techniques to accomplish the project
- Plans to deal with risk and change
- The process for maintaining the integrity of the product and the project
- Instructions for conducting management reviews

Executing

Executing essentially encompasses any actions necessary to do the work of the project. Executing processes include performing quality checks, assisting and developing the project team, communicating, and interacting with sellers or potential sellers.

This is the stage where the majority of the project budget will be used and the deliverables that satisfy the project objectives will be created.

Monitoring and Controlling

Monitoring and Controlling occurs throughout the project.This stage involves checking performance with an eye toward effective change management and an attention to detail.

In Monitoring and Controlling, information on performance and progress is collected and distributed. Changes, such as alterations to scope and schedules, are also identified and managed.

Monitoring and Controlling processes also involve managing stakeholder expectations and engagement, tracking and reacting to risk, and monitoring contracts between buyers and sellers.

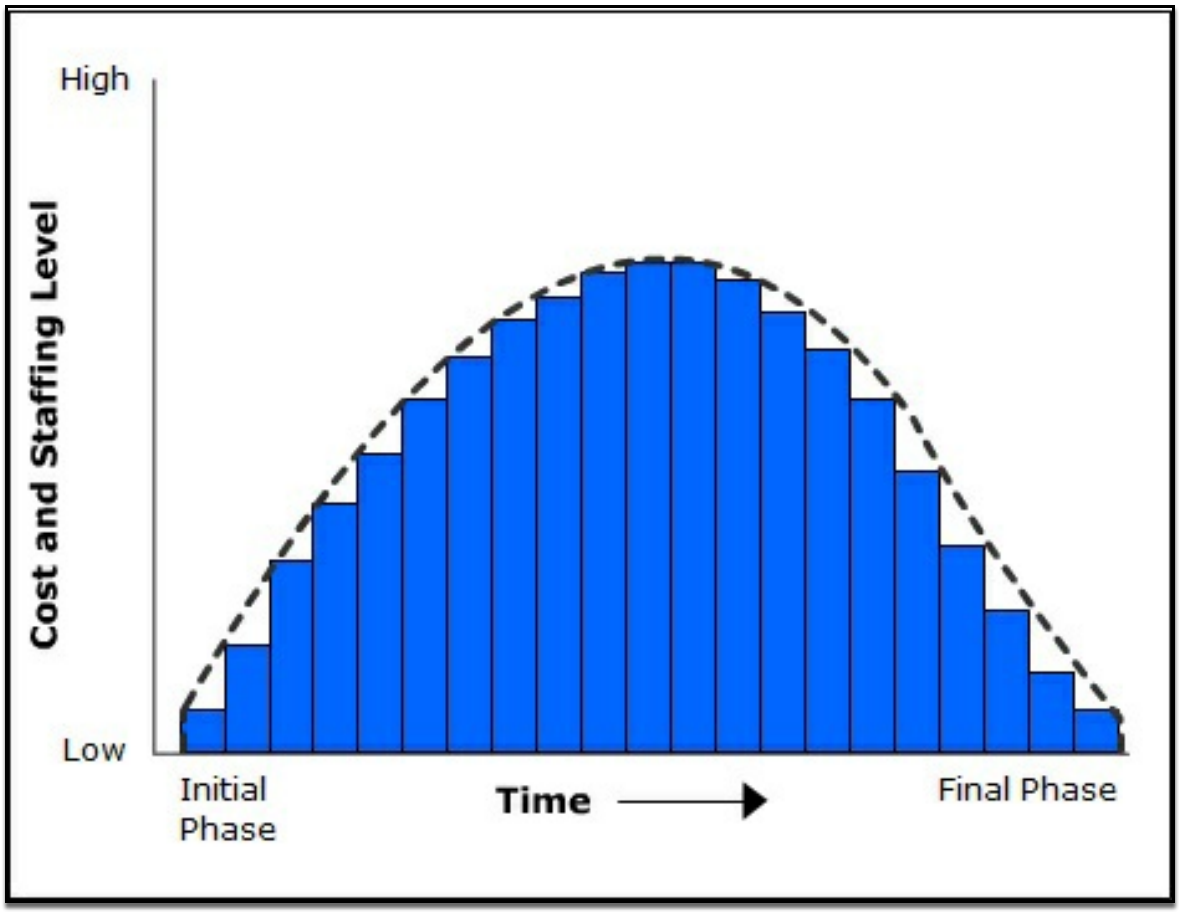
Closing

Closing is the final stage. It is often divided into a contract closure procedure (settling all contract terms and conditions) and an administrative closure procedure (capturing, analyzing, and archiving records, such as lessons learned).

The Project Life Cycle: Change and Cost

As a project progresses from beginning to end, the cost of changes increases, while the influence of the stakeholders decreases. The risks of a project failing are also greatest at the beginning of the project, with a progressively higher likelihood of completion as the project proceeds.

The cost and staffing levels over the project life cycle are illustrated in the image below.



In the initial stages of a project, cost and staffing levels are low. Notice how they trend upward as the project approaches its middle and then decrease as the project nears completion.

Project Phases

It is important to be clear that these five stages are **not** synonymous with project phases because they do not exactly coincide with the phases of a project. Projects may have multiple phases—a design phase, a development phase, a testing phase, etc.—and each of these phases may have its own initiating, planning, executing, monitoring and controlling, and closing processes.

Video Commentary

Project Stages and Phases

Richard Maltzman

The terms "stages" and "phases"--what are the differences in the field of project management? A "phase" is a very project-specific way of dividing a project's timeline into segments or chunks. For example, a new electronic device may go through a concept, prototype, testing, and delivery "phase."

The idea of "stages" (or "process groups") works in any practice area: electronics, construction, advertising, pharmaceuticals, whatever. In fact, each "phase"--from the example of the electronic device--could be broken up into the "stages" of Initiating, Planning, Executing, Monitoring and Controlling, and Closing. Each phase could have its own stage with its own deliverables managed with the project management stages that I just mentioned. So the electronic device project might have managed the prototype phase to deliver the prototype at the completion of its Closing stage, or Closing process group.

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The boundary between phases is usually set at the point when different organizations or different skills sets are required to contribute to a project, and the end of a phase is usually marked by the production of a deliverable.

Common problems in managing phases of a project include:

- Starting a project with the wrong objective
- Completing a phase prematurely
- Lingering on one phase for too long
- Not conducting a final-stage "lessons learned" project review
- Not incorporating lessons learned from previous phases or projects into current work

A project will often be assessed before the next phase begins. Assessment allows practitioners to discover problems or errors in the project while these problems are still comparatively inexpensive to fix. If the project was designed to fulfill objectives that are no longer required, or if the risk in continuing is too great, the next phase might not receive authorization.

1.15 Selecting a Project Manager

Selecting a Project Manager

Because project managers are so important to the management of projects, the abilities, skill, and integrity of the project leader or project manager may be the most important factors to ensure project success.

In fact, in a 2004 research study from Portland State University in Oregon called Criteria for Project Assignments in Multiple-Project Environments, the credibility of the project manager was viewed as the number one constraint of a project. Looking at this conclusion inversely, this means that people perceive trust in the project manager as critical to project success.

Selecting a project manager is a critical decision. As a logistical step, it's important to ask for recommendations on people who would make an effective project manager or to look for organizations that could make such recommendations. Once candidates are selected and/or interviewed, it is important to check references asking: Would you employ this person again? Why or why not?

It is important to recognize that a candidate who has listed the project manager role on his or her resume may not be necessarily right for the job. Rather, many experts suggest selecting candidates with the following characteristics:

- demonstrated leadership skills—ideally someone who has shown honesty and accountability for a project of relatable size and scope
- a solid understanding of how to proactively plan, estimate, and budget from the beginning of a project
- experience in building work plans and demonstrated proficiency in at least one project management tool
- the ability to articulate processes for managing risk, scope, communication, and quality
- a recognition that a project manager does not "own" the project and a willingness to spread and share responsibility
- evidence of aptitude in decision-making, negotiating, problem-solving, goal-setting, and motivating/coaching others
- strong oral and written communication skills

It's clear from this list that good project management requires many general management skills.

Key Competencies

Another way to look for the optimal traits and characteristics of project managers is to review the Portland State Research findings on the impact of project manager competencies on project success. In that study, an expert panel was asked to evaluate the relative importance of project managers' competencies to the success of new product development projects. Competencies were ranked in six areas: administrative, business/strategic, multiple project management, interpersonal, intrapersonal, and technical. (The panel assumed that the projects took place in a multi-project environment.)

The top competencies for each of these six areas were:

- **Administrative:** Monitoring/control
- **Business/strategic:** Business sense
- **Multiple project management:** Experience
- **Interpersonal:** Leadership
- **Intrapersonal:** Organization and discipline
- **Technical:** Knowledge of product applications

In selecting a project manager, it is helpful to first consider the nature of the project and which competencies and skills are likely to be required. Then try to find candidates with the desired experience and skills.

Video Commentary

What to Look for When Choosing a Project Manager

Richard Maltzman

What are you looking for when choosing a project manager? I like to put this in terms of "KSAs": Knowledge, Skills, and Attributes. Let's take them one at a time.

Knowledge breaks down into: technical knowledge of a practice area (for example, understanding the pharmaceutical business) as well as the technical knowledge of project management itself as a science--the ability to understand and use Gantt charts, for example.

Then there's skills--the capability to use the tools involved (for example, Microsoft Project, one of the software packages that will help you use Gantt charts).

And then attributes. It's a little harder to measure, but this includes things like being extroverted (because as an animator of projects you will have to be extroverted); having great communication skills (as an attribute), and the ability to deal with uncertainty and to become a quick learner. These are all attributes that fit into the expectations of a good project manager.

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1.16 Exercise: Project Manager Profile Review

This assignment does not contain any printable content.

1.17 Best Practices: Project Team Leadership

Best Practices: Project Team Leadership

Effective project managers empower team members to complete project tasks, but teams still need strong leadership from project leaders to help them complete project objectives. Without solid leadership, teams often struggle to remain focused on customer requirements and fail to evolve and develop new skills.

By integrating the following ideas into your leadership practices, you can effectively lead your teams to successfully accomplish project goals:

Provide accountability and team guidance

- Maintain a balance between a long-range, strategic approach and short-term tactical decisions. Work with the team to achieve immediate results, but remember to also keep an eye on long-term problem-solving and decision-making issues.
- Help the team understand the project's purpose and goals. Clearly state the organization's expectations of the team, and continually reinforce the project's stated intention and success criteria.
- Don't evade your responsibility as a project leader and project manager. Empower the team to make the decisions that are within their control, but don't sidestep your duties. Don't leave team members to make decisions where they lack appropriate authority or don't have the proper context.

Maintain a constant flow of information

- Use graphic visual displays to summarize the team's work and keep stakeholders aware of team progress. (This will relieve the team from constantly having to answer questions.) Regularly update these displays so that the most-recent information is available to everyone at all times.
- Use direct, unambiguous language to present information and to clearly express your thoughts and ideas.
- Encourage participation in the decision-making process. Value the input of others by collecting ideas and opinions before making decisions.

Set project boundaries but allow the work to adapt

- Set boundaries for the project but allow practices to evolve within those boundaries. Remove redundancy and waste, and review practices regularly to ensure that they remain efficient and effective.
- Make sure that the team objectives are aligned with project requirements. Keep the team focused on meeting objectives and satisfying customer needs.
- Enforce a disciplined project approach. Make sure that the team follows project guidelines and practices to meet goals and objectives.

Develop the team

- Make sure team members continue to learn new skills, apply new tools and techniques, and improve individual and team competencies. Provide training opportunities and encourage exploration and continuous improvement.
- Express a belief in your team members' abilities to solve problems and develop solutions. Encourage autonomy so team members exercise their own judgment (while they stay within project boundaries), and express trust in team decisions.

Motivate the team

- Establish high expectations for yourself and your team. Expect team members to adopt a belief that they will continue to achieve goals and produce successful outcomes each time they take on new challenges.
- Keep team members engaged. Exhibit enthusiasm and excitement for team progress and celebrate the team's successes.

Adjust your leadership style as the team matures

- Recognize that "command-and-control" policies and practices will hamper team progress. Remember that you are providing information and helping the team to shape processes to achieve results—you are not micro-managing their tasks.
- As processes become part of a team's daily practice, adjust your leadership style from one that "guides and teaches" to one that "shares and interacts." When you spend less time teaching the team how to work, you can spend more time immersing yourself in the work itself.
- Don't try to solve the team's problems. Expose problems and help the team develop solutions as they see fit.

By focusing on supporting and enabling the team, effective project leaders eliminate distractions and provide a framework within which the team can do what they do best—create products that meet requirements.

1.18 Managing Stakeholder Expectations

Managing Stakeholder Expectations

On any project, expectations—about what the project is for, how it should be run, and what the end result should look like—will inevitably be made by the people in and around the project. While effective project managers work to ensure that these stakeholder and participant expectations will be met, they also need to *manage* those expectations to keep them aligned with any changes to the project's goals or objectives. They need to continually communicate and work with stakeholders, to guarantee that expectations remain realistic and that notions of success are based on the evolving project objectives. Changing plans will need to be discussed with affected parties, and the project manager may be called upon to help these groups adjust and resolve any issues that occur as expectations are refashioned.

The Issue Log

As changes are discussed with stakeholders, these conversations may uncover new issues that need to be investigated and addressed. As with all other issues on the project, these issues should be documented in an issue log.

The issue log helps the project manager and project management team decide how they will focus their efforts and keep the project on track. Any time an issue is discovered, the project manager (or appropriate team member) will need to update the issue log with all pertinent information, which will then allow the project management team to prioritize and plan for the issue's resolution. Each issue should be assigned an owner who is responsible for communicating about the issue with the appropriate parties, and for tracking and resolving the issue by a set target date. Documenting (and continually updating) all issues will ensure that a shared understanding of each issue exists and that plans for how it will be addressed and resolved have been thought through.

Video Commentary

The Issue Log

Richard Maltzman

What is an issue log? First of all, what is an issue? An issue is a 100-percent certain problem that is having a negative effect on your project's objective, and it's important to dissect that definition of an issue first. For example, a supplier providing needed materials for your project has gone bankrupt. That's an issue.

An issue log is the place to capture all of the relevant info about the issue: the owner, the subject matter experts involved, the current status, the resolution plans you have in place, and the impacts on the project and the project's objectives.

This needs to be a living document, updated frequently and communicated widely to the right people. Otherwise, issues fester.

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Resolving Issues

When an issue is uncovered, the project team can respond with a range of responses that will depend on the issue itself and on

the abilities of the people on the team. The response will need to take into account stakeholder management strategies, but generally, the issue should be addressed with stakeholders promptly and sincerely.

If the project's budget includes management reserves set aside for potential issues, the project management team may need approval to apply these reserves to resolve the issue. Changes to the project activities may also need to be made, and while a change should not be implemented without considering the impacts on the project's baselines and the work of the project team, project managers should not be resistant to change out of principle or stubbornness. It is all too common for project managers to become so invested in their ideas about how projects should be run that they are resistant to changes necessary to bring the project to success.

If planned project activities do need to be changed to ensure that the project meets acceptance criteria, change requests may need to be submitted and project documents may need to be updated. Regardless of the specific management decisions made, the issue log will need to be updated to reflect the issue's resolution. This updated issue log will become an important document for future projects, as the lessons learned from resolving the issues can help other teams avoid similar problems or use the relevant information to resolve their own problems.

Satisfying Stakeholders

The satisfaction of stakeholders will rely on the interpersonal skills of the project manager, who may need to use decision-making, negotiation, or conflict management skills to ensure project success. These skills may help soothe stakeholders and assure them that the project remains on track to meet the contracted project criteria. While not every issue that arises needs to be addressed, those that do will need to be carefully considered to prevent project delays or incomplete requirements that may upset or anger stakeholders.

1.19 Exercise: Team Leadership Concepts

This assignment does not contain any printable content.

1.20 Forming the Project Team

Forming the Project Team

To complete a project successfully, the project manager will need to compile a project team. But the process of putting together a team may not be easy—human resources, like most other resources on a project, are limited and may have to be shared with other departments or projects. In addition, team members may not possess the necessary skills to complete needed activities so those skills will need to be procured or acquired in some form. But for the project to be completed successfully, the project manager will have to ensure that an effective team can be created, with people whose skills and abilities will contribute the most to achieving the project's goals.

Staffing the Project

Putting together and managing a project team is a multidimensional activity. It involves:

- recruiting the team
- assessing their skill sets and interest in the project
- ensuring that those people with the appropriate skill sets will be available when needed
- developing, motivating, coaching, and evaluating team members
- personally modeling the behaviors of an ideal team player, including exhibiting respect for others and resolving conflicts when they occur

In addition, there are constraints that will affect the project and its roles and responsibilities. For example, a weak matrix organization may grant the project manager less authority; there may be union contracts that can hamper or limit staffing choices; or budgetary constraints may limit travel or staffing. All of these factors will need to be taken into account as the project manager completes the project roster.

Negotiating for Services

Even after deciding who he or she would like to have on the team, the project manager may need to negotiate for their services—with functional managers (in a functional organization) or other project managers (in projectized organizations). This negotiation should ideally be done face-to-face, with a copy of important project documents (like the project charter) sent to the other negotiating party in advance. (An email summarizing the project's sponsor, intent, objectives, duration, and time frame can

also be used.) The project manager might also specify the name(s) of potential team candidate(s) or their required skill sets. Negotiations should be done in good faith, with a win-win result as the goal of both parties. If the other party in the negotiation responds unenthusiastically to the request, the project manager may want to strategize possible compromises, including the replacement of an employee pulled away, or some other compensatory mechanism.

Virtual Teams

In some instances, it may be possible to create a virtual team to complete project activities. Virtual teams are groups of people with a shared goal who fulfill project obligations with little or no time spent meeting face-to-face. Virtual teams can make some projects (that might otherwise have been postponed or canceled due to travel expenses) possible or easier to complete. A virtual team may also be more productive because it may bring together:

- people from diverse geographic areas, with differing ideas or viewpoints
- an expert who is crucial to project success but cannot be co-located with the rest of the team
- employees with necessary skills who work from home offices or remote locations

The limitations that used to prevent these individuals from collaborating are now moot because advances in technology have, in effect, shortened the distance between these people. It is important to remember, however, that new technologies require new management competencies. In virtual environments, the project manager should give special consideration to the way that communication is planned and executed, as some communications may require more time and emphasis because of cultural differences and the reduced face time shared between managers and the project team.

Video Commentary

Virtual Teams: Benefits and Drawbacks

Richard Maltzman

What are the benefits and drawbacks to virtual teams? Well, the benefits of a virtual team are that you have people located closer to your clients and customers, closer to work sites. You also end up with a diversity in culture and geography, and this breeds new and creative ideas; some of my most productive project teams have always been when I've had the most diversity in the teams.

Drawbacks. Well, there are drawbacks to having a virtual team as well. For example, the simple physics of dealing with different time zones and trying to find a meeting time that will be at a convenient time for the entire team. Language--that's the simple different languages: English, Spanish, Swahili, and so forth--but also things like accents, dialects, and expressions, even within a particular country or language. There's lots of room for misunderstanding, so it's going to take a lot stronger project leader to bring those misunderstandings together or to prevent them from occurring in the first place. And, of course, there's the drawback of a lack of face time. Team building, therefore, is much harder, and again is going to require more animation from the project practitioner.

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Training the Staff

If team members have some but not all of the necessary skills for the project, the project manager may need to provide appropriate training to build competencies, or to assign them to work with a senior project team member to gain the needed skills. Training may be formal (such as classroom-, online-, or computer-based training) or it may be informal coaching,

mentoring, or job shadowing. If mentoring or job shadowing is used, the time spent on these activities should be factored into role and responsibility descriptions and time estimates.

1.21 Building a High-performing Team

Building a High-performing Team

Developing a Team, Rather than a Group

In many projects, an empowered or high-performing team will greatly increase the possibility of project success, so one key responsibility of the project manager is to develop this highly functioning team out of a collection of people.

Empowered or high-performing teams communicate freely, exchange input and feedback, and discuss ideas openly. These team members work effectively together, are more enthusiastic and committed, and resolve conflicts more quickly without intervention. And working on these types of teams encourages people to internalize the teams' goals and be more highly motivated, more excited, more creative, and harder working.

Any high-performing team possesses four common characteristics: complementary skills; pursuit of a common goal; a shared approach and performance measurements; and mutual accountability. Each of these characteristics is described in more detail in the presentation below:

Slide 1

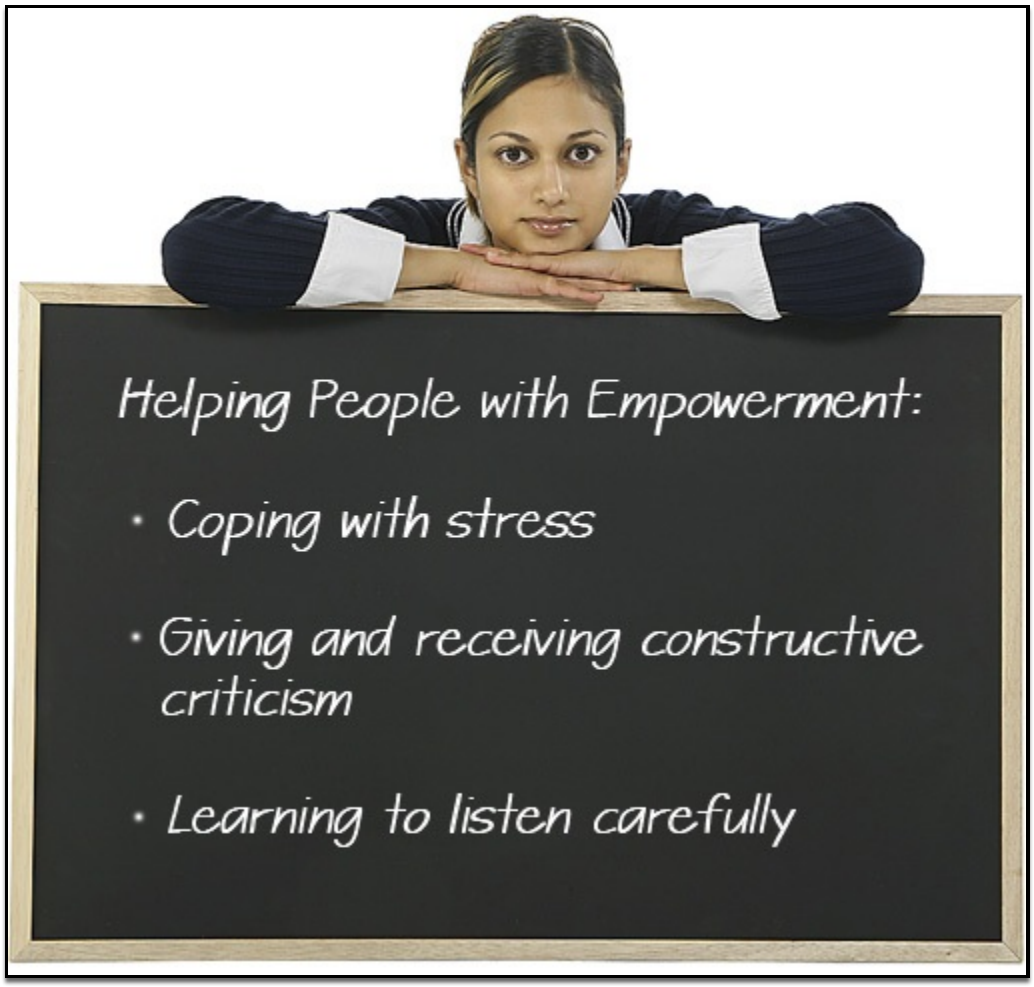
Slide 2

Slide 3

Slide 4

Challenges

There are, however, challenges to working with such teams. Although a team leader/manager does not play a traditional supervisory role when working with an empowered team, she does have a critical role to play in laying the groundwork for the team's success. Indeed, a team leader can help workers collaborate successfully as an empowered team in three primary ways.



Workers who are not used to being on an empowered team may initially be uncomfortable with the increased accountability that comes from working on such a team and they may be uneasy depending on their colleagues to such a great degree. A team leader should recognize this challenge and help employees deal with the stress of it.

Employees new to an empowered team environment may also find it difficult to tolerate constructive criticism from coworkers who are not their supervisors. Moreover, workers may be unaccustomed to giving constructive criticism to their peers. A leader can use team-building and training exercises to address the issue.

Finally, communication is essential to the success of an empowered team. While team members may have little difficulty expressing their own opinions, they often fail to listen carefully to the opinions and ideas of other team members. A team leader can use training exercises to instill the skill of careful listening.

Signs of Dysfunction

Project managers must also become comfortable identifying signs that their team is breaking down. Oftentimes, chronic complaining about progress or workload to one another or to the project manager, apathy, poor communication, and missed deadlines are red flags. When a project manager intervenes in such a situation, it is often helpful to call a meeting where team members can air their concerns, and the project management team can gather information to decide on a course of action, which might be additional training that will allow staff to complete work with less frustration, or the project management team might decide to use other team development techniques. Whatever intervention technique is chosen, it should be implemented quickly to address the problem before it adversely affects the project.

1.22 Team Building and Team Dynamics

Team Building and Team Dynamics

As a project team leader embarks on managing a group, he or she should be aware of certain common team dynamics. Bruce Tuckman's model of group development is a good framework to apply. This model suggests that every team goes (in order) through the stages of forming, storming, norming, performing, and adjourning.

Forming

In the early stages of a team's development, the forming of the group takes place. From a work perspective, the group meets, learns about the project, agrees on goals, and then begins working on tasks. From a behavioral perspective, the team members tend to act independently and are on their best behavior. This stage is important because the group gets to know one another and grows more friendly.

Because team members are just getting adjusted to new project tasks and new coworkers, the team leader needs to be directive during the Forming stage.

Storming

After leaving the Forming stage, teams enter the Storming stage. In this stage, different ideas and/or approaches compete for consideration by the group. The team members feel more open with one another and confront different ideas and perspectives. During Storming, team members deal with questions that include how the team will function independently and collectively, as well as what leadership model will be adopted. The length of the Storming stage varies by team. The maturity of the group members typically determines when the team moves out of this stage.

During the Storming stage, the team leader should focus on two areas:

- Emphasizing tolerance of team members and their differences
- Continuing to be directive in guiding decision-making

Norming

After the Storming stage concludes, teams enter the Norming stage. After weathering the conflict of Storming, team members modify their behavior as they develop team-oriented work habits. This results in more natural teamwork. The group begins to build internal trust, and motivation increases as the team becomes more comfortable with the project.

The team leader plays a more participative role than in the earlier stages. With the group members working more cooperatively and effectively, they can be expected to take more responsibility for decision-making.

Performing

High-performing teams reach what is called the Performing stage, when a team finds ways to accomplish its work effectively without inappropriate conflict or the need for external supervision. Team members become interdependent. Conflict is handled through means that are acceptable to the team.

The team leader plays a participative role during the Performing stage, since the team makes most of the necessary decisions.

Adjourning

As the project comes to a close, teams enter an Adjourning stage that offers a sense of closure for the current project and acts as a stepping-off point for future projects. This completion stage gives team members a chance to recognize their achievements and say goodbye to each other before they move on to new roles and activities. This can be a difficult time for some team members because the relationships that have developed during the project are coming to an end and practitioners may be beginning new assignments that are not well-defined.

In the Adjourning stage, team leaders may need to rely on their "soft skills" to alleviate concerns and enable team members to appropriately shift their focus to their new activities. Leaders may be called upon to provide guidance to group members and to assist in these transitions, to reduce uncertainty and ensure a smooth progression to subsequent work.

Project managers need to understand that teams will progress through these stages at different rates—some teams may progress quickly while others move more slowly through the stages. And teams may also become "stuck" in certain stages and will need encouragement and training before they can progress to the next stage.

Video Commentary

Tuckman's Model

Richard Lincoln

Throughout the course of a project, the project team goes through various stages: "Forming," "Storming," "Norming," "Performing," and "Adjourning." This is part of Tuckman's Model and it's an effective tool to help us manage our team, and maybe not just manage but really understand where the team is. Some people see it as trite and "No, things don't really happen that way" but I think it is a useful tool. As we coach our team, look for better performance, and help our team through these phases, it makes sense as least to understand them and look at the model a little bit. Again, the concept is important, how we apply it is up to us.

Teams all go through different stages in their development. One thing that's important is on projects, we might have a project team that's worked together before, that means we can do some things differently, we can ramp up more quickly, we can get more stuff done faster. Other project teams you might have a mix, some have worked together, some haven't. You also have corporate culture that gets involved and how that influences the norms that teams may or may not have and how people interact. All these things come together.

What's important, I think as a coach and a leader, is that you look at your team and if you see things going on, a team that's "Storming," every meeting they come in and they're fighting about this or that, to let them understand: that's perfectly normal.

At the same time, let's start at the beginning, oh everybody's cordial, isn't it nice, isn't it great, and then you hear the side conversations later. "Wow, I really don't think they get this project; why are they on this team?" Right? That's the difference. They are in the beginning stages, they are just Forming, they're being polite, they're being cordial, but they have their doubts. They don't know where they fit in and nobody else does. We start to move along and we go to the next stage, but first we have to get out of that "Forming" stage. It's important to let people know "Hey, you know what, we're just getting together here, we're all going to be pretty polite and then the fists are going to come out." Then, things are going to start to happen, we can often help to facilitate that and move people through the stages more quickly.

Same thing with "Storming": Some people might feel "Wow, we just can't get anything done, we're fighting over this, fighting over that, trying to figure out, should we have coffee and tea at a meeting, or should we have muffins or bagels? These are small decisions and we can't even make those!" Again, it's important to help your team understand where they are and say "this is perfectly normal." Some teams fear that that's going to last through the entire project, it's "never going to change," and words like "never" are permanent. They think, "it's never going to change, that's what this project's going to be like, it's going to be a disaster," and you don't want your team thinking that way. Help them through the stages. Use the model to follow them along and guide them through key points.

When they first start Storming, you can't tell them "Hey! You guys are Storming, stop it!". No! You want to let it brew a little bit and then help them see, "Hey, you're starting to make decisions, you're starting to work together. You guys are 'Storming' right now, its actually productive, this conflict is good. We're working out the issues that'll actually help us get to the next stages, so that we can actually be a 'Performing' team down the road." Not every team gets there, but high-performing teams are a tremendous value to help us get things done sooner.

The last stage is to recognize that if we've got to 'Performing' and we've been working together, we might be sad to see each other go. It may be hard to believe on some of your projects, but it's true, we build relationships, we enjoy working with people, that's why we do what we do. Recognize: "Hmm, that transition can be tough as well." Accept it, move on, and you will have opportunities to do it all again. So, use the concepts to help guide your team, help them recognize where they are, and that it's not a permanent situation, it's transitory, you're going to move through the stages. Helping them see that will help them move through the stages more effectively and be more productive, sooner.

Richard K. Lincoln, Jr., MBA, PMP is a project management and leadership consultant.In this capacity, he is responsible for development of project management policies and processes, project management maturity development, and managing projects. In addition, he is a member of the Northeastern University adjunct faculty where he is actively involved in the development and delivery of project management courses. Mr. Lincoln's experience spans the software, pharmaceutical and biotech, and financial services industries. Mr. Lincoln holds a Master of Business Administration degree earned with distinction from The Babson College Graduate School of Management.

Tuckman's Model

Rich Maltzman

Some of you are familiar with Tuckman's Model. This is the model that's "Forming, Storming, Norming, Performing" and sometimes "Adjourning". This is a model that is used by people managers as well as project managers to understand how their team evolves over time, and it's not used explicitly. We don't tell our team that today we're going to move to the "Storming" stage, unless you want to do that for comedy reasons, you don't identify these stages explicitly. It's really an advantage, a trick, if you will, for project managers to be aware that teams go through these stages, as they build themselves and as you help build them, and to recognize as they're moving between these stages, what you do in terms of your direction and your support for the team.

One of the phases that is encountered in Tuckman's model is the "Storming" phase, and I want to give you a warning here: It is very common for project managers, being the types of people that they are, to want to skip this stage, to avoid the conflict and get right to the teamwork and "let's everyone live together in perfect harmony." Of course, I want that, you want that, but what Tuckman asserts, and what is true from my experience, is that the teams will go through a "Storming" phase and you shouldn't try to skip it, gloss over it, or smooth it out. Up to a point, you kind of have to let that happen.

What happens in that phase is that there will be some conflict, there will be some establishment of power, and so forth. As that's happening, people are establishing their roles and as project manager, you want to let that happen naturally and let the subject matter expert in a particular technology show themselves as that expert. Another person who's more of a good negotiator and good communicator to show those skills, and you can tell, from my experience, when you are exiting that stage, when people stop coming to you, the project manager, to find out who they go to for certain information.

Magically, the team will start to go to itself; that is, a person will go to John, as the subject matter expert on unit testing, because they know through the Storming phase that he's demonstrated that skill, or that Karen is the person to go to if there is something that has to be put into PowerPoint format, because she's shown that she has a skill to communicate really really well on behalf of the team. So, it is important to know the team stages in Tuckman's model, but don't think of it as a guide that you should follow and say "Okay, next Wednesday at 3 o'clock we move to 'Norming'", that's just not going to happen. Instead, be aware of the stages, be aware of your role as project manager, and understand some of these transitions, like the example I gave you when you move from Storming to Performing.

Rich Maltzman, PMP®, is the Learning and Professional Advancement Leader at a major telecom supplier.He also develops and delivers project management courseware for academic and enterprise firms, such as Boston University, the University of North Carolina, and Action for Results. A contributor to the *PMBOK® Guide*, 4th Edition, he has co-authored PMP® Exam study guides. He is co-founder at EarthPM, LLC, and along with co-founder David Shirley, PMP®, has authored the book, *Green Project Management: Planet, Projects, Profits, and People*. He received a BSEE from the University of Massachusetts in Amherst and has a graduate degree in industrial engineering from Purdue University.

1.23 Exercise: Tuckman Model Fill-in-the-blank

This assignment does not contain any printable content.

1.24 Barriers to Leading a High-Performing Team

Barriers to Leading a High-Performing Team

What barriers can prevent a team leader and their high-performing team from succeeding? There are five factors that team leaders must address, or they may find team performance suffering. They are:

1. Company culture trumps personal leadership style.
2. Organizational structure may limit leadership authority.
3. Team development stages affect project output.
4. Different leadership styles are needed for different team development stages.
5. Teams must be cultivated.

Slide 1

Company Culture Trumps Personal Leadership Styles

Company culture is a very strong and pervasive force. Even if a project manager's leadership style has been successful at one company, it may not be successful at another.

Project management team leaders must consider whether their personal leadership styles complement their company's culture. When the two are in conflict, project management team leaders must consider how they can modify their personal styles to be more compatible with the overall company culture.

Slide 2

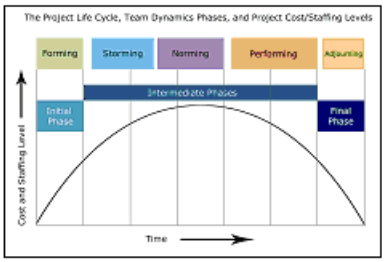
Organizational Structure May Limit Leadership Authority

Just as company culture can be a barrier to project management team leadership success, so can the organizational structure. Project managers working in a functional organization, for example, must expect to have limited authority over the team. In this environment, authority resides with the functional manager. Although leadership cannot be exerted through authority in this type of organization, there may be other sources of power that a project manager can seek to use, such as through expertise or respect.

Slide 3

Leaders should recognize team development stages

Normal team development stages can have an effect on project output. The *Forming* stage is less productive as the team begins to understand the requirements of the project.



Then, time and resources are often consumed as the team works through conflicts in the *Storming* stage. Once in the *Norming* phase, project work picks up. Project managers must recognize this pattern and modify their project plans and schedules accordingly.

Slide 4

Different Leadership Styles are Needed for Different Team Development Stages

Successful project team leaders are flexible in many aspects including leadership styles. In the *Forming* and *Storming* stages, it is crucial that the team leader behave in a directive way. As the team evolves into the *Norming* and *Performing* phases, the project management leader's style should become more participative.

Slide 5

Teams Must be Cultivated

Teams don't develop simply because several people are designated to work together. Project management team leaders need to proactively create a shared understanding and vision of what the team needs to accomplish. Team-building activities will often help cultivate the atmosphere necessary to transform a work group into a team.

1.25 Minicase: A Project at Montclair Luggage?

This assignment does not contain any printable content.

1.26 Discussion Board

This assignment does not contain any printable content.

1.27 Short Paper

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Module Feedback

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