Developing the Project Team

THE PMP EXAM CONTENT FROM THE EXECUTING THE PROJECT PERFORMANCE DOMAIN COVERED IN THIS CHAPTER INCLUDES THE FOLLOWING:

✓ Execute Tasks Defined in Project Plan
✓ Ensure Common Understanding and Set Expectations
✓ Implement the Procurement of Project Resources
✓ Manage Resource Allocation
✓ Improve Team Performance
This chapter begins the project Executing process group. I'll cover four of the processes in this chapter: Direct and Manage Project Execution, Acquire Project Team, Develop Project Team, and Distributing Information. I'll jump around a bit in this chapter, as you can tell from the processes I'll cover. Many of these processes are extensions, so to speak, of the Planning processes leading up to them. I'll cover the remaining Executing processes in the next chapter.

Direct and Manage Project Execution is the action process. This is where you'll put the plans into action and begin working on the project activities. Execution also involves keeping the project in line with the original project plan and bringing wayward activities back into alignment.

Several things happen during the Executing processes. The majority of the project budget will be spent during this process group, and often the majority of the project time is expended here as well. The greatest conflicts you'll see during the project Executing processes are schedule conflicts. In addition, the product description will be finalized here and contain more detail than it did in the Planning processes.

Hang with me during this chapter, because I make several references to the next process—the Monitoring and Controlling process group—that are inputs to the Executing process group. These are the only two process groups that serve as inputs to each other. Since I can't discuss both of them at the same time, I'll tell you when there's something specific from the Monitoring and Controlling process group that I'll discuss in a later chapter.

There might be several exam questions from every process within the Executing process group. You'll find the majority of questions are about the Direct and Manage Project Execution, Acquire Project Team, and Develop Project Team processes. Don't skip studying the other processes, however, because roughly a quarter of the exam questions concern the entire Executing process group. Are you ready to dive into Executing? Let's go.

**Executing the Project Plan**

The purpose of the *Direct and Manage Project Execution* process is to carry out the project plan. This is where your project comes to life and the work of the project happens. The work is authorized to begin and activities are performed. Resources are committed and carry out their assigned activities to create the product, result, or service of the project. Funds are spent to accomplish project objectives. Performing project activities, training, selecting sellers, collecting project data, utilizing resources, and so on, are all integrated with or are part of this process.

Direct and Manage Project Execution is where the rubber meets the road. If you've done a good job planning the project, things should go relatively smoothly for you during this
Executing the Project Plan

process. The deliverables and requirements are agreed to, the resources have been identified and are ready to go, and the stakeholders know exactly where you’re headed because you had them review, agree to, and approve the project plan.

Some project managers think this is the time for them to kick back and put their feet up. After all, the project plan is done, everyone knows what to do and what’s expected of them, and the work of the project should almost carry itself out because your project plan is a work of genius, right? Wrong! You must stay involved. Your job now is a matter of overseeing the actual work, staying on top of issues and problems, and keeping the work lined up with the project plan.

Exam Spotlight

The project plan serves as the project baseline. During the Executing processes, you should continually compare and monitor project performance against the baseline so that corrective actions can be taken and implemented at the right time to prevent disaster. This information will also be fed into the Monitoring and Controlling processes for further analysis.

One of the most difficult aspects of this process is coordinating and integrating all the elements of the project. Although you do have the project plan as your guide, you still have a lot of balls in the air. You’ll find yourself coordinating and monitoring many project elements—occasionally all at the same time—during the course of the Direct and Manage Project Execution process. You might be negotiating for team members at the same time you’re negotiating with vendors at the same time you’re working with another manager to get a project component completed so your deliverables stay on schedule. You should monitor risks and risk triggers closely. The Plan Purchases and Acquisitions process might need intervention or cause you delays. The organizational, technical, and interpersonal interfaces might require intense coordination and oversight. And of course, you should always be concerned about the pulse of your stakeholders. Are they actively involved in the project? Are they throwing up roadblocks now that the work has started?

According to the PMBOK Guide, this process also requires implementing corrective actions to bring the work of the project back into alignment with the project plan, preventive actions to reduce the probability of negative consequences, and defect repairs to correct product defects discovered during the quality processes.

As you can see, your work as project manager is not done yet. Many elements of the project require your attention, so let’s get to work.

Later in this chapter I’ll also talk about Develop Project Team because this is an integral part of the Direct and Manage Project Execution process as well. You’ll want to monitor the team’s performance, the status of their work, and their interactions with you and other team members as you execute the project plan.
Executing Inputs

Direct and Manage Project Execution has seven inputs:

- Project management plan
- Approved corrective actions
- Approved preventive actions
- Approved change requests
- Approved defect repair
- Validated defect repair
- Administrative closure procedure

The project management plan documents the collection of outputs of the Planning processes and describes and defines how the project should be executed, monitored, controlled, and closed. You’ll take a brief look at each of the other inputs next.

Approved Corrective Actions

In my organization, a corrective action means an employee has big trouble coming. Fortunately, this isn’t what’s meant here. Corrective actions are taken to get the anticipated future project outcomes to align with the project plan. Maybe you’ve discovered that one of your programmers is adding an unplanned feature to the software project because he’s friends with the user. You’ll have to redirect him to the activities assigned to him originally to avoid schedule delays. Perhaps your vendor isn’t able to deliver the laboratory equipment needed for the next project phase. You’ll want to exercise your contract options (let’s hope there’s a clause in the contract that says the vendor must provide rental equipment until they can deliver your order), put your contingency plan into place, and get the lab the equipment that’s needed to keep the project on schedule.

Corrective actions are outputs of processes in the Monitoring and Controlling process group, but they serve as inputs to the Direct and Manage Project Execution process. I’ll talk more about corrective actions in Chapter 10, “Monitoring and Controlling Change.”

Approved Preventive Action

Preventive action involves anything that will reduce the potential impacts of risk events should they occur. Contingency plans and risk responses are examples of preventive action. I described these and other risk responses while talking about the Risk Response Planning process in Chapter 5, “Risk Planning.” You should be aware of contingency plans and risk responses so that you’re ready to implement them at the first sign of trouble. Approved preventive actions are an output of processes in the Monitoring and Controlling process group.
Approved Change Requests
Approved change requests, another output of the Monitoring and Controlling process group, are changes that either expand or reduce project scope. Approved changes might also cause revisions to project budgets, schedules, procedures, project management plans, and so on. Change requests can be internal or external to the project or organization. For example, a new law that’s passed that affects your project might require changes.

Approved Defect Repairs
OK, it’s your turn to figure it out: defect repairs are an output of what process? Approved defect repairs authorize corrections to product defects that are discovered during the Perform Quality Assurance process (primarily during product inspection or during quality audits). Approved defect repairs are an output of the Integrated Change Control process.

Validated Defect Repair
The difference between a validated defect repair and a defect repair is that the validated defect repair is the result of a reinspection of the original defect repair. In other words, you found a problem with the product during the Quality processes, you corrected the problem (defect repair), and now you’re reinspecting that repair (validated defect repair) to make certain the fix is accurate, correct, and fixed the problem.

Administrative Closure Procedure
The administrative closure procedure is a document that outlines how administrative closure will occur on the project, the activities needed to perform this procedure, and the essential roles and responsibilities.

Exam Spotlight
For the exam, remember that the outputs of the Executing and Monitoring and Controlling process groups are also inputs to each other.

Tools and Techniques of Direct and Manage Project Execution
The tools and techniques of the Direct and Manage Project Execution process are project management methodology and project management information system. You’ve looked at both of these before. Remember that in the Executing processes, you’ll be actively using both of these tools (employing the methodology you’ve developed in Planning and referring to the PMIS to update and track progress).
A curious thing happens here. Although the PMBOK Guide no longer lists work authorization systems as a tool and technique of the Direct and Manage Project Execution process, it's still listed in its glossary as a tool. It's also a subsystem of the project management system. Even though this isn't listed in the PMBOK Guide, I recommend that you understand what a work authorization system is for the exam and how you use it. And for the record, you'll use these during the Executing processes.

Work authorization systems clarify and initiate the work of each work package or activity. This is a formal procedure that authorizes work to begin in the correct sequence and at the right time. Work authorization systems are usually written procedures defined by the organization. They might include email, intranet-based, or paper-based systems. Verbal instructions might work well with small projects. You should understand the complexity of the project and balance the cost of instituting a work authorization system against the benefit you'll receive from it. This might be overkill on small projects, and as stated earlier, verbal instructions might work just as well.

Work is usually authorized using a form that describes the task, the responsible party, anticipated start and end dates, special instructions, and whatever else is particular to the activity or project. Depending on the organizational structure, the work is assigned and authorized by either the project manager or the functional manager.

Some of the outputs of this process are going to look familiar. You'll examine them next.

**Outputs of Direct and Manage Project Execution**

The Direct and Manage Project Execution process utilizes most of the outputs of the Planning process group and some of the outputs of the Monitoring and Controlling process group. The outputs of the Direct and Manage Project Execution process are as follows:

- Deliverables
- Requested changes
- Implemented change requests
- Implemented corrective actions
- Implemented preventive actions
- Implemented defect repairs
- Work performance information

The two primary outputs are deliverables, meaning actually accomplishing the activities leading to the completion of the product, result, or service you set out to produce, and work performance information. Without having completed the prior processes, you wouldn't know what the work of the project should look like.

The outputs starting with implemented were covered in the tools and techniques section. The only difference between the tools and techniques and the output is that during the output,
the action or request is implemented. Because I haven’t mentioned it in a while, now is a good time for a documentation reminder—it’s not a bad idea to record all the approved and implemented actions for future reference. You’ll now look at the other three outputs.

**Deliverables**

During Direct and Manage Project Execution, you’ll gather and record information regarding the outcomes of the work, including activity completion dates, milestone completions, the status of the deliverables, the quality of the deliverables, costs, schedule progress and updates, and so on. Deliverables aren’t always tangible. For example, perhaps your team members require training on a piece of specialized equipment. Completion of the training is recorded as a work result. Capabilities required to perform a service that’s described in the project management plan are also considered a deliverable. All of this information gets used during the Performance Reporting process, which I’ll discuss during the Monitoring and Controlling processes.

Executing and Monitoring and Controlling are two process groups that work hand in hand. As you gather the information from work results, you’ll measure the outputs and take corrective actions where necessary. This means you’ll loop back through the Executing processes to put the corrections into place. The *PMBOK Guide* breaks these processes up for ease of explanation, but in practice, you’ll work through several of the Executing and Monitoring and Controlling processes together.

**Requested Changes**

As a result of working through activities and producing your product, service, or result, you will inevitably come upon things that need to be changed. Changes can also come about from stakeholder requests, external sources, technological advances, and so on. These change requests might encompass schedule, scope, requirement, or resource changes. The list really could go on. Your job as project manager, if you choose to accept it, is to collect the change requests and make determinations about their impact to the project.

I’ll discuss change requests in the coming chapters. Requested changes are an output of several process, including the Direct and Manage Project Execution process and the Performance Reporting process in the Monitoring and Controlling process group. Remember that Executing and Monitoring and Controlling outputs feed each other as inputs.

**Exam Spotlight**

Direct and Manage Project Execution is where the work of the project is performed and the project plan is put into action and carried out. In this process, the project manager is like an orchestra conductor signaling the instruments to begin their activities, monitoring what should be winding down, and keeping that smile going to remind everyone that they should be enjoying themselves. I recommend that you know the outputs of the Direct and Manage Project Execution process for the exam.
Real World Scenario

We All Scream for Ice Cream

Heather is a pharmaceutical salesperson who is fed up with the rat race. She ran the numbers, decided to quit her day job, and bought an ice cream shop in a quaint tourist town. Having been involved in a few research and development projects, she understands the value of project management planning and using that plan as her guide to perform the work of the project.

Heather documented the deliverables needed to prepare for opening day in her scope statement. Some of those deliverables are as follows: remodel, develop staffing plan, procure equipment, and procure materials. Confident in her planning, Heather hired a contractor and began remodeling the shop. And then real life happened. The contractors discovered a water problem in the storage room. They installed a sump pump, which took care of the water, but discovered an even bigger problem when they moved the storage shelves. There was mold growing up the drywall. The drywall had to be removed, as did the insulation behind it, and the mold remaining on permanent fixtures had to be eliminated. Then new insulation and drywall had to be installed. The drywall had to be primed and painted, and Heather decided since that portion of the storage room was getting a fresh coat of paint, the contractors might as well paint the entire room.

All of these actions required another pass through the Planning processes. The schedule didn't require much modification because other work could be started at the same time the water problem was being addressed, but the budget needed to be modified as a result of the additional work. To avoid more surprises, Heather requested that the contractor perform a thorough inspection of the property and determine whether there were any other hidden issues. Armed with the inspection report, Heather could knowledgeably plan corrective action for other items that needed to be addressed.

Work Performance Information

Work performance information concerns gathering, documenting, and recording the status of project activities. According to the PMBOK Guide, these are the types of information you might gather during this process:

- Schedule status and progress
- Status of deliverable completion
- Progress and status of schedule activities
- Adherence to quality standards
- Status of costs (those authorized and costs incurred to date)
- Schedule activity completion estimates for those activities started
Acquiring the Project Team

The Acquire Project Team process involves attaining and assigning human resources to the project. Project staff might come from inside the company or from outside the company in the form of employees hired specifically for the project or as contract help. In any case, it's your job as the project manager to ensure that resources are available and skilled in the project activities to which they're assigned. However, in practice, you might find that you don't always have control over the selection of team members. Someone else, the big boss for example, might hand-pick the folks they want working on the project, and it's up to you to assess their skills and decide where they best fit on the project.

The Acquire Project Team process inputs are as follows: enterprise environmental factors, organizational process assets, roles and responsibilities, project organization charts, and staffing management plan.

Some project activities might require special skills or knowledge in order to be completed. The enterprise environmental factors input involves taking this information into account as well as considering personal interests, characteristics, and availability of potential team members before making assignments. For example, consider the previous experience of the staff member you're thinking of assigning to a specific activity. Have they performed this function before? Do they have the experience necessary for the level of complexity this project activity calls for? Are they competent and proficient at these skills?

Personal interests and personal characteristics play a big role as well. If the person you're thinking of just isn't interested in the project, they aren't likely to perform at their best. If you can, think about assigning someone else in a case like this. Unfortunately, some people just don't play well with others. When you're assigning staff, if at all possible, don't put the only two people in the whole company who can't get along together on the same project. If the staff member you need has a skill no one else has or they can perform a function like no one else can, you might not have a choice. In this case, you'll have to employ other techniques to keep the team cohesive and working well together despite the not-so-friendly characteristics of the vital team member.
One final consideration: check on the availability of key team members. If the team member you must have for the activity scheduled in February is on their honeymoon, you probably aren’t going to win the toss.

**Exam Spotlight**

Even though the availability, experience levels, interests, cost, and abilities of your resources are considered part of the enterprise environmental factors input, you should understand these inputs and their importance to the Acquire Project Team process for the exam.

Recruitment practices are an example of the organizational process assets to watch for in this process. This is a matter of making certain you consult any organizational procedures or policies currently in place when hiring and assigning staff. Organizational policies that dictate recruitment practices are constraints.

You’ve looked at the other inputs in previous processes, so you’ll move on to the tools and techniques of this process.

**Tools and Techniques of Acquire Project Team**

Preassignment, negotiation, acquisitions, and virtual teams are tools and techniques of the Acquire Project Team process. As the project manager, you will use the negotiation technique a lot. You’ll have to negotiate with functional managers and other organizational department managers—and sometimes with the vendor to get some of their best people—for resources for your project and for the timing of those resources.

*Preassignment* can happen when the project is put out for bid and specific team members are promised as part of the proposal or when internal project team members are promised as a condition of the project. When staff members are promised as part of the project proposal—particularly on internal projects—they should be identified in the project charter.

Availability is one part of the negotiating equation. You’ll have to work with the functional manager or other project managers to ensure that the staff member you’re requesting is available when the schedule says they’re needed.

The second part of the equation is the competency level of the staff member they’re assigning to your project. I remember hearing someone say once that availability is not a skill set. Be wary of functional managers who are willing to offer up certain individuals “anytime” while others are “never available.” Be certain your negotiations include discussions about the skills and personal characteristics of the team members you want on your project.

*Acquisition* is another tool and technique of the Acquire Project Team process. It involves hiring individuals or teams of people for certain project activities, either as employees or as contract help during the course of the project or project phase or for specific project activities. *Procurement* is usually required when the organization does not have employees with the required skills and competencies available to work on the project.
Virtual teams are teams that don't necessarily work in the same location but all share the goals of the project and have a role on the project. This type of team allows you to include folks from different geographic locations, those who work different hours or shifts than the other team members, those with mobility limitations, and so on. According to the PMBOK Guide, “Virtual teams can be defined as groups of people with a shared goal, who fulfill their roles with little or no time spent meeting face to face.” In today's wonderful world of technology, team members can use the Internet, email, videoconferencing, and teleconferencing to meet and communicate on a regular basis. This of course brings to light the importance of communication. Make certain all team members are aware of the protocols for communicating in a virtual team environment, understand the expectations, and are clear regarding decision making processes. It's vital in this type of team structure that you as the project manager give credit to the appropriate team members for their performance and actions on the project. You might be the only one who fully understands the contributions individual team members have made. When teams are co-located, members have the opportunity to see for themselves the extraordinary efforts others are making on the project. Virtual team members don’t necessarily know what their teammates have contributed to the project (or the level of effort they’ve exerted), so it's up to you to let everyone know about outstanding performance.

**Outputs of Acquire Project Team**

The resulting outputs of the Acquire Project Team process are project staff assignment, resource availability, and staffing management plan updates.

Your ability to influence the selection of resources (using the negotiating technique) will impact the project staff assignment output. After determining elements such as the roles and responsibilities, reviewing recruitment practices, and negotiating for staff, you assign project team members to project activities. Along with this output, a project team directory is published listing the names of all project team members and stakeholders. Don’t forget to also include team member names in project organization charts, RAM charts, and other planning documents if their assignments or names weren’t known when you created those documents.

**Real World Scenario**

**The Only Candidate**

“Hey, did you hear?” your friend Story asks. “Roger has been assigned to the project team.”

“Over my dead body,” you reply, pushing away from your computer screen. You head straight for the project manager’s office and don’t wait for a response from Story.
Ann seats the phone into the cradle just as you walk through the door. Fortunately for you, Ann's door is always open, and she welcomes drop-ins.

"Seems like something is on your mind," Ann says. "What can I help with?"

"Story just told me that Roger has been assigned to the project team. I can't work with Roger. He's arrogant and doesn't respect anyone's work but his own. He belittles me in front of others, and I don't deserve that. I write good code copy, and I don't need Roger looking over my shoulder. I want to be on this team, but not if Roger is part of it."

Ann thinks for a minute and replies, "I want you to work on this project; it's a great opportunity for you. But there isn't anyone else who can work on the analysis phase of this project except Roger. He's the only one left who has a solid understanding of the mainframe legacy code. Unfortunately, those old programs were never documented well, and they've evolved over the years into programs on top of programs. Without Roger's knowledge of the existing system, we'd blow the budget and time estimates already established for this project. Since I need both of you on this project, here's what I propose. I will clearly outline the roles and responsibilities for all the key team members at the kickoff meeting. I'll also make it clear that negative team interactions won't be allowed. And if you have a problem with Roger that you can't resolve on your own, you should get me involved right away."

The time periods your project staff are available are documented in the resource availability output. This document comes in handy when you're creating the final schedule and assigning resources to activities.

The staffing management plan might require updates to document the project roles and responsibilities of the staff assigned to the project. This document might require updates throughout the project if you have staff members leave because of a promotion or, heaven forbid, if they leave for employment in another company (unless you want them to leave—that's another story).

Now that you have the team, what do you do with them? You'll look at topics such as motivation, rewards, and recognition in the next process, Develop Project Team.

Developing the Project Team

Projects exist to create a unique product, result, or service within a limited time frame. Projects are performed by people, and most projects require more than one person to perform all of the activities. If you've got more than one person working on your project, you've got a team. And if you've got a team, you've got a wide assortment of personalities, skills, needs, and issues in the mix. Couple this with part-time team members, teams based in functional organizations whose loyalty lies with the functional manager, or teams based in matrix organizations that
Developing the Project Team

The proper development of the team is critical to a successful project. Since teams are made up of individuals, individual development becomes a critical factor to project success. Individual team members need the proper development and training to perform the activities of the project or to enhance their existing knowledge and skills. The development needed will depend on the project. Perhaps you have a team member who's ready to make the jump into a lead role but they don't have any experience at lead work. Give them some exposure by assigning them a limited amount of activities in a lead capacity, provide them with some training if needed, and be available to coach and mentor where needed. The best option is to work with the management team to provide this person with the development they need prior to the start of the project (if you're lucky enough to know early on who your resources might be and what their existing skills are).

Develop Project Team inputs include project staff assignments, staffing management plan, and resource availability. Funny thing, these inputs are all outputs that I discussed in the Acquire Project Team process, so I'll move on.

**Tools and Techniques of Develop Project Team**

The tools and techniques of Develop Project Team are as follows:

- General management skills
- Training
- Team building activities
- Ground rules
- Co-location
- Recognition and rewards

I'll cover all these tools and techniques next.
General Management Skills

You learned about general management skills back in Chapter 1, “What Is a Project?” These include skills such as general business knowledge, budgeting, organizational skills, problem-solving skills, and so on. What’s important to note here is that the general management skills of leadership, influence, negotiation, communications, empathy, and creativity are especially useful during this process and others in the Executing process group.

One other issue to consider regarding this tool and technique is that you’ll have resources from other departments who have assignments on the project that you’re responsible for overseeing. For example, the finance department and the marketing department might have assigned project activities, and as the project manager, you’ll manage their progress. This implies that you’ll need general knowledge management skills to understand what the assignments entail and strong leadership skills to influence the departments to stay on schedule.

Training

Training is a matter of assessing your team members’ skills and abilities, assessing the project needs, and providing the training necessary for the team members to carry out their assigned activities. Training can sometimes be a reward as well. In the software industry, programmers seek out positions that offer training on the latest and greatest technologies, and they consider it a benefit or bonus to attend training on the company dollar and time. If you know early in the Planning processes that training is necessary, include the details of this in the staffing management plan. During the course of the project, you might observe team members who need training, or they might ask for training. Update the staffing management plan with this information.

Team-Building Activities

Many times, project teams consist of folks who don’t know each other. They aren’t necessarily aware of the project objectives and might not even want to be a part of the team. The project manager might not have worked with the people assigned to the project team before either. Sound like a recipe for disaster? It’s not. Thousands of projects are started with team members and project managers who don’t know each other and come to a successful completion. How is that done? It’s a result of the project manager’s team-building and communication skills.

The project manager’s job is to bring the team together, get its members all headed in the right direction, and provide motivation, reward, and recognition to keep the team in tip-top shape. This is done using a variety of team-building techniques and exercises. Team building is simply getting a diverse group of people to work together in the most efficient and effective manner possible. This might involve events organized by the management team or individual actions designed to improve team performance. There are entire volumes on this subject, and it’s beyond the scope of this book to go into all the team-building possibilities. The exam tends to focus more on the theories behind team building and the characteristics of effective teams, so that’s what you’ll spend your time exploring.
Dr. Bruce Tuckman developed a model that describes how teams develop and mature. According to Tuckman, all newly formed teams go through four stages of development:

1. **Forming**
2. **Storming**
3. **Norming**
4. **Performing**

You’ve probably seen this elsewhere, but since these stages might show up on the exam, you’ll want to memorize them. Take a brief look at each of them:

**Forming**  This one is easy. Forming is the beginning stage of team formation, when all the members are brought together, introduced, and told the objectives of the project. This is where team members learn why they’re working together. During this stage, team members tend to be formal and reserved and take on an “all-business” approach.

**Storming**  Storming is where the action begins. Team members become confrontational with each other as they’re vying for position and control during this stage. They’re working through who is going to be the top dog and jockeying for status.

**Norming**  Now things begin to calm down. Team members know each other fairly well by now. They’re comfortable with their positions in the team, and they begin to deal with project problems instead of people problems. In the norming stage, they confront the project concerns and problems instead of each other. Decisions are made jointly at this stage, and team members exhibit mutual respect and familiarity with one another.

**Performing**  Ahh, perfection. Well, almost, anyway. This is where great teams end up. This stage is where the team is productive and effective. The level of trust among team members is high, and great things are achieved. This is the mature development stage.

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**Exam Spotlight**

Different teams progress through the stages of development at different rates. When new team members are brought onto the team, the development stages start all over again. It doesn’t matter where the team is in the development process—a new member will start the cycle all over again.

According to Tuckman, leaders adapt their leadership styles as the teams develop maturity and progress through the development stages. For example, early in the forming stage, leaders take on a direct style of leadership. As the team progresses, their leaders will employ a coaching, participating, and then delegating style of leadership to match the level of development the team has achieved.

You’ll now take a closer look at focusing your team members throughout these stages of development, along with some of the characteristics of effective teams.
Team Focus

Have you ever watched any of those old pirate movies on late-night TV? Remember the scenes where the captain goes down into the bowels of the ship to check on the teams of rowers? He scrutinizes the crew and literally whips the rowers who aren’t pulling their weight into shape. I don’t recommend this as a team-building technique, but imagine for a minute that your project team members are like those rowing teams. If the members on the left are rowing one way and the members on the right are rowing another, you’re creating a lot of energy and looking busy, but in the end you aren’t making any progress.

It’s paramount that the team members know and understand the goals and objectives of the project. They should all understand the direction you’re headed and work toward that end. After all, that’s the reason they’ve been brought together in the first place. Keep in mind that people see and hear things from their own perspective. A room full of people attending a speech will each come away with something a little different because what was said speaks to their particular situation in life at the time. In other words, their own perceptions filter what they hear. It’s your job as project manager to make certain the team members understand the project goals and their own assignments correctly. The whip was effective for the captain in the old movies, but I suggest you use solid communication skills to get your point across. Ask your team members to tell you in their own words what they believe the project goals are. This is a great way to know whether you’ve got everyone on board and a great opportunity for you to clarify any misunderstandings regarding the project goals.

Effective Team Characteristics

Effective teams are typically very energetic teams. Their enthusiasm is contagious, and it feeds on itself. They generate a lot of creativity and become good problem solvers. Teams like this are every project manager’s dream. Investing yourself in team building as well as relationship building—especially when you don’t think you have the time to do so—will bring many benefits. Here’s a sample of the benefits:

- Better conflict resolution
- Commitment to the project
- Commitment to the project team members and project manager
- High job satisfaction
- Enhanced communication
- A sense of belonging and purpose
- A successful project

Dysfunctional teams will typically produce the opposite results of the benefits just listed. Dysfunctional teams don’t just happen by themselves any more than great teams do. Sure, sometimes you’re lucky enough to get the right combination of folks together right off the bat. But usually, team building takes work and dedication on the part of the project manager. Even in the situations where you do get that dynamite combination of people, they will benefit from team-building exercises and feedback.
Unfortunately, sour attitudes are just as contagious as enthusiasm. Watch for these symptoms among your team members, and take action to correct the situation before the entire team is affected:

- Lack of motivation or “don’t care” attitudes
- Project work that isn’t satisfying
- Status meetings that turn into whining sessions
- Poor communication
- Lack of respect and lack of trust for the project manager

No amount of team building will make up for poor project planning or ineffective project management techniques. Neglecting these things and fooling yourself into thinking that your project team is good enough to make up for the poor planning or poor techniques could spell doom for your project. And besides that, it’s not fair to your project team to put them in that position.

**Ground Rules**

Ground rules are expectations set by the project manager and project team that describe acceptable team behavior. For example, one of my pet peeves is team members who interrupt each other. In this case, one of the ground rules is one person speaks at a time during a meeting. Another ground rule might be reporting potential issues as soon as the team member becomes aware of them. Outlining ground rules like this helps the team understand expectations regarding acceptable behavior and increases productivity.

**Co-location**

Team members are often in the same physical location—for example, the same office building or meeting space. This tool and technique is called co-location. Co-location enables teams to function more effectively than if they’re spread out among different localities. Many times on large projects, the project manager will make provisions in the project budget to bring the team together at the same location. (It’s difficult, but not impossible, to manage project team members who are not physically located together.) One way to achieve co-location might be to set aside a common meeting room, sometimes called a *war room*, for team members who are located in different buildings or across town to meet and exchange information.

Multiple locations can also be a big time waster for you as the project manager and for your team members. If some team members are located in one part of town and another set of team members are located across town, you’ll find yourself in the car (or the bus) driving back and forth to make face-to-face contact and get status updates. Conducting team meetings also becomes a hassle as one set of team members or the other must drive to another location (or both to a central location) to have a meeting.
Our busy, conflicting schedules and differences in location don’t always allow for face-to-face communication, so email is the next best thing. I’m a huge email fan—it’s one of my favorite forms of communication. Email can keep the information flowing when you aren’t able to meet in person, and it can even help take the heat out of conflicts that might escalate if you were meeting one on one. However, email cannot reveal tone of voice, facial expressions, or body language. Sometimes those nonverbal cues are more important than what’s being said. If you don’t know your team members or stakeholders well, I recommend meeting with them personally whenever you can. Once you’ve established good relationships with them, you should be able to balance the use of email and personal interactions and know when it’s time to call a face-to-face meeting. In reality, it’s often difficult to get your team together physically. A good solution in lieu of having people relocate is videoconferencing or conference calling. Team members scattered across the country all have access to the telephone, and it’s relatively easy to find a time everyone can meet over the phone. Videoconferencing is the best option if it’s available because it allows intonation and nonverbal behaviors to be part of the communication process.

Recognition and Rewards

I have quite a bit of ground to cover with recognition and rewards. As I said earlier, you could see several exam questions regarding team building, so dig out all your favorite memorization techniques and put them to use.

Team building starts with project planning and doesn’t stop until the project is completed. It involves employing techniques to improve your team’s performance and keeping team members motivated. Motivation helps people work more efficiently and produce better results. If clear expectations, clear procedures, and the right motivational tools are used, project teams will excel.

Motivation can be extrinsic or intrinsic. Extrinsic motivators are material rewards and might include bonuses, the use of a company car, stock options, gift certificates, training opportunities, extra time off, and so on.

Intrinsic motivators are specific to the individual. Some people are just naturally driven to achieve—it’s part of their nature. (I suspect this is a motivator for you since you’re reading this book.) Cultural and religious influences are forms of intrinsic motivators as well. Reward and recognition—a tool and technique of the Develop Project Team process—are examples of extrinsic motivators. You’ll look at them next.

Recognition and rewards are an important part of team motivation. They are formal ways of recognizing and promoting desirable behavior and are most effective when carried out by the management team and the project manager. You should develop and document the criteria for rewards, especially monetary awards. Although rewards and recognition help build a team, they can also kill morale if you don’t have an established method or criteria for handing them out. Track who is receiving awards throughout the project. For example, if you have consistent overachievers on the team, you could kill morale by consistently rewarding the same one or two people repeatedly. It could also be perceived that you’re playing favorites. If team members believe the rewards are win-lose (also known as zero-sum) and that only certain team members
will be rewarded, you might end up hurting morale more than helping. If you find yourself in this position, consider team awards. This is a win-win because all team members are recognized for their contributions. Recognition and rewards should be proportional to the achievement. In other words, appropriately link the reward to the performance. For example, a project manager who has responsibility for the project budget and the procurement process and keeps the costs substantially under budget without sacrificing the results of the project should be rewarded for this achievement. However, if these responsibilities are assigned to a functional manager in the organization, it wouldn’t be appropriate to reward a project manager who was not the one responsible for keeping the costs in line.

Team members should be rewarded for going above and beyond the call of duty. Perhaps they put in a significant amount of overtime to meet a project goal or spent nights round-the-clock babysitting ill-performing equipment. These types of behaviors should be rewarded and formally recognized by the project manager and the management team. On the other hand, if the ill-performing equipment was a direct result of mistakes made or if it happened because of poor planning, rewards would not be appropriate, obviously.

Consider individual preferences and cultural differences when using rewards and recognitions. Some people don’t like to be recognized in front of a group; others thrive on it. Some people appreciate an honest thank-you with minimal fanfare, and others just won’t accept individual rewards as their culture doesn’t allow it. Keep this in mind when devising your reward system.

There are many theories on motivation. As a project manager, it’s important to understand them so that you can tailor your recognition and rewards programs to take into account the reasons people do what they do. You might encounter questions on these theories on the exam, so I’ll discuss their primary points in the following sections.

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**Real World Scenario**

**Baker’s Gift Baskets**

You’re a contract project manager for Baker’s Gift Baskets. This company assembles gift baskets of all styles and shapes with every edible treat imaginable. The company has recently experienced explosive growth, and you’ve been brought on board to manage its new project. The owners of the company want to offer “pick-your-own” baskets that allow customers to pick the individual items they want included in the basket. In addition, they’re introducing a new line of containers to choose from, including items such as miniature golf bags, flowerpots, serving bowls, and the like. This means changes to the catalog and the website to accommodate the new offerings.

The deadline for this project is the driving constraint. The website changes won’t cause any problems with the deadline. However, the catalog must go to press quickly to meet holiday mailing deadlines, which in turn are driving the project deadline.
Your team members put their heads together and came up with an ingenious plan to meet the catalog deadline. It required lots of overtime and some weekend work on their part to pull it off, but they met the date.

You decide this is a perfect opportunity to recognize and reward the team for their outstanding efforts. You've arranged a slot on the agenda at the next all-company meeting to bring your team up front and praise them for their cooperation and efforts to get the catalog to the printers on time. You'll also present each of them with two days of paid time off and a gift certificate for a dinner with their family at an exclusive restaurant in the city.

Motivational Theories

Motivational theories came about during the modern age. Prior to today's information- and service-type jobs and yesterday's factory work, the majority of people worked the land and barely kept enough food on the table to feed their family. No one was concerned about motivation at work. You worked because you wouldn't have anything to eat if you didn't. Fortunately, that isn't the only reason most people work today.

Today we have a new set of problems in the workplace. Workers in the service- and knowledge-based industries aren't concerned with starvation—that need has been replaced with other needs such as job satisfaction, a sense of belonging and commitment to the project, good working conditions, and so on. Motivational theories present ideas on why people act the way they do and how you can influence them to act in certain ways to get the results you want. Again, there are libraries full of books on this topic. I'll cover four of them here.

MASLOW'S HIERARCHY OF NEEDS

You have probably seen this classic example of motivational theory. Abraham Maslow theorized that humans have five basic needs arranged in hierarchical order. The first needs are physical needs, such as the need for food, clothing, and shelter. The idea is that these needs must be met before the person can move to the next level of needs in the hierarchy, which includes safety and security needs. Here, the concern is for the person's physical welfare and the security of their belongings. Once that need is met, they progress to the next level, and so on.

Maslow's hierarchy of needs theory suggests that once a lower-level need has been met, it no longer serves as a motivator and the next higher level becomes the driving motivator in a person's life. Maslow conjectures that humans are always in one state of need or another. Here is a recap of each of the needs, starting with the highest level and ending with the lowest:

Self-actualization  Performing at your peak potential
Self-esteem needs  Accomplishment, respect for self, capability
Social needs  A sense of belonging, love, acceptance, friendship
Safety and security needs  Your physical welfare and the security of your belongings
Basic physical needs  Food, clothing, shelter
The highest level of motivation in this theory is the state of self-actualization. The United States Army had a slogan a few years ago that I think encapsulates self-actualization very well: “Be all that you can be.” When all the physical, safety, social, and self-esteem needs have been met, a person reaches a state of independence where they’re able to express themselves and perform at their peak. They’ll do good work just for the sake of doing good work. Recognition and self-esteem is the motivator at lower levels; now the need for being the best they can be is reached.

HYGIENE THEORY
Frederick Herzberg came up with the Hygiene Theory, also known as the Motivation-Hygiene Theory. He postulates that two factors contribute to motivation: hygiene factors and motivators. Hygiene factors deal with work environment issues. The thing to remember about hygiene factors is that they prevent dissatisfaction. Examples of hygiene factors are pay, benefits, the conditions of the work environment, and relationships with peers and managers. Pay is considered a hygiene factor because Herzberg believed that over the long term, pay is not a motivator. Being paid for the work prevents dissatisfaction but doesn’t necessarily bring satisfaction in and of itself. He believed this to be true as long as the pay system is equitable. If two workers performing the same functions have large disparities in pay, then pay can become a motivator.

Motivators deal with the substance of the work itself and the satisfaction one derives from performing the functions of the job. Motivators lead to satisfaction. The ability to advance, the opportunity to learn new skills, and the challenges involved in the work are all motivators according to Herzberg.

Exam Spotlight
For the exam, remember that Herzberg was the inventor of the Hygiene Theory and that this theory claims that hygiene factors (pay, benefits, and working conditions) prevent dissatisfaction, while motivators (challenging work, opportunities to learn, and advancement) lead to satisfaction.

EXPECTANCY THEORY
The Expectancy Theory says that the expectation of a positive outcome drives motivation. People will behave in certain ways if they think there will be good rewards for doing so. Also note that this theory says the strength of the expectancy drives the behavior. This means the expectation or likelihood of the reward is linked to the behavior. For example, if you tell your two-year-old to put the toys back in the toy box and you’ll give her a cookie to do so, chances are she’ll put the toys away. This is a reasonable reward for a reasonable action. However, if you promise your project team members vacations in Hawaii if they get the project done early and they know there is no way you can deliver that reward, there is little motivation to work toward it.
This theory also says that people become what you expect of them. If you openly praise your project team members and treat them like valuable contributors, you'll likely have a high-performing team on your hands. Conversely, when you publicly criticize people or let them know that you have low expectations regarding their performance, they'll likely live up (or down as the case might be) to that expectation as well.

ACHIEVEMENT THEORY

Achievement Theory says that people are motivated by the need for three things: achievement, power, and affiliation. The achievement motivation is obviously the need to achieve or succeed. The power motivation involves a desire for influencing the behavior of others. And the need for affiliation is relationship oriented. Workers want to have friendships with their co-workers and a sense of camaraderie with their fellow team members. The strength of your team members' desire for each of these will drive their performance on various activities.

Exam Spotlight

Make certain you understand the theories of motivation and their premises for the exam. Here's a summary to help you memorize them.

Maslow: Hierarchy of needs

Hygiene theory: Work environment (pay, benefits, and working conditions) prevents dissatisfaction

Expectancy theory: Expectation of positive outcomes drives motivation

Achievement theory: People are motivated by achievement, power, and affiliation. I'll cover two more theories in the leadership section, which is next. These deal specifically with how leaders interact with their project team members.

Leadership versus Management

Chapter 1 introduced the differences between leaders and managers. I'll add a bit more information here regarding leadership theories and the types of power leaders possess, but first I'll recap leadership and management first before I talk about those theories.

Recall that leadership is about imparting vision and rallying people around that vision. Leaders motivate and inspire and are concerned with strategic vision. Leaders have a knack for getting others to do what needs done.

Two of the techniques they use to do this are power and politics. Power is the ability to get people to do what they wouldn't do ordinarily. It's also the ability to influence behavior. Politics imparts pressure to conform regardless of whether people agree with the decision. Leaders understand the difference between power and politics and when to employ each technique. I'll talk more about power shortly.
Good leaders have committed team members who believe in the vision of the leader. Leaders set direction and time frames and have the ability to attract good talent to work for them. Leaders inspire a vision and get things done through others by earning loyalty, respect, and cooperation from team members. They set the course and lead the way. Good leaders are directive in their approach but allow for plenty of feedback and input. Good leaders commonly have strong interpersonal skills and are well respected.

Managers are generally task oriented and concerned with issues such as plans, controls, budgets, policies, and procedures. They're generalists with a broad base of planning and organizational skills, and their primary goal is satisfying stakeholder needs. They also possess motivational skills and the ability to recognize and reward behavior.

**NOTE**

Project managers need to use the traits of both leaders and managers at different times during a project. On large projects, a project manager will act more like a leader inspiring the subproject managers to get on board with the objectives. On small projects, project managers will act more like managers because they're responsible for all the planning and coordinating functions.

I'll discuss three theories regarding leadership and management. They are Douglas McGregor's Theory X and Theory Y and the Contingency Theory. Then I'll discuss the types of power leaders use and the outputs of Develop Project Team.

**THEORY X AND THEORY Y**

Douglas McGregor defined two models of worker behavior, Theory X and Theory Y, that attempt to explain how different managers deal with their team members. **Theory X** managers believe most people do not like work and will try to steer clear of it; they believe people have little to no ambition, need constant supervision, and won't actually perform the duties of their job unless threatened. As a result, Theory X managers are like dictators and impose very rigid controls over their people. They believe people are motivated only by punishment, money, or position. Unfortunately for the team members, Theory X managers unknowingly also subscribe to the Expectancy Theory. If they expect people to be lazy and unproductive and treat them as such, their team members probably will be lazy and unproductive.

**Theory Y** managers believe people are interested in performing their best given the right motivation and proper expectations. These managers provide support to their teams, are concerned about their team members, and are good listeners. Theory Y managers believe people are creative and committed to the project goals, that they like responsibility and seek it out, and that they are able to perform the functions of their positions with limited supervision.

**CONTINGENCY THEORY**

The Contingency Theory builds on a combination of Theory Y behaviors and the Hygiene Theory. The Contingency Theory, in a nutshell, says that people are motivated to achieve levels of competency and will continue to be motivated by this need even after competency is reached.
The Power of Leaders

As stated earlier, power is the ability to influence others to do what you want them to do. This can be used in a positive manner or a negative one. But that old saying of your grandmother’s about attracting more flies with honey than vinegar still holds true today.

Leaders, managers, and project managers use power to convince others to do tasks a specific way. The kind of power they use to accomplish this depends on their personality, their personal values, and the company culture.

A project manager might use several forms of power. I’ve already talked about reward power, which is the ability to grant bonuses or incentive awards for a job well done. Here are a few more:

**Punishment power**  Punishment, also known as coercive or penalty power, is just the opposite of reward power. The employee is threatened with consequences if expectations are not met.

**Expert power**  Expert power occurs when the person being influenced believes the manager, or the person doing the influencing, is knowledgeable about the subject or has special abilities that make them an expert. The person goes along just because they think the influencer knows what they’re doing and it’s the best thing for the situation.

**Legitimate power**  Legitimate, or formal, power comes about as a result of the influencer’s position. Because that person is the project manager, executive vice president, or CEO, they have the power to call the shots and make decisions.

**Referent power**  Referent power is inferred to the influencer by their subordinates. Project team members who have a great deal of respect and high regard for their project managers willingly go along with decisions made by the project manager because of referent power.

Punishment power should be used as a last resort and only after all other forms have been exhausted. Sometimes you’ll have to use this method, but I hope much less often than the other three forms of power. Sometimes, you’ll have team members who won’t live up to expectations and their performance suffers as a result. This is a case where punishment power is enacted to get the employee to correct their behavior.

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**Exam Spotlight**

Know the difference between leaders and managers, Theory X and Theory Y, the Contingency Theory, and the types of power for the PMP exam. Here’s a summary to help you memorize them:

**Leaders:** Leaders motivate, inspire, and create buy-in for the organization’s strategic vision. Leaders use power and politics to accomplish the vision.

**Managers:** Managers are task oriented and concerned with satisfying stakeholder needs.

**Theory X:** Most people don’t like work.

**Theory Y:** People are motivated to perform their best given proper expectations and motivation.
**Contingency Theory:** People are motivated to achieve levels of competency and will continue to be motivated after competency is reached.

**Reward power:** You reward desirable behavior with incentives or bonuses.

**Punishment power:** You threaten team members with consequences if expectations are not met (also known as *penalty power*).

**Expert power:** The person doing the influencing has significant knowledge or skills regarding the subject.

**Legitimate power:** This is the power of the position held by the influencer (the president or vice president, for example).

**Referent power:** This is power that's inferred to the influencer.

**Outputs of Develop Project Team**

You’re now ready to close out the Develop Project Team process. This process has only one output: team performance assessment. As a result of positive team-building experiences, you’ll see individuals improving their skills, team behaviors and relationships improving, conflict resolutions going smoothly, and team members recommending ways to improve the work of the project. I talked about effective team characteristics earlier in this chapter. Assessing these characteristics will help you determine where (or whether) the project team needs improvements.

*Project managers wear a lot of hats. This is one of the issues that make this job so interesting. You need organization and planning skills to plan the project. You need motivation and sometimes disciplinary skills to execute the project plans. You need to exercise leadership and power where appropriate. And all the while, you have a host of relationships to manage, involving team members, stakeholders, managers, and customers. It’s a great job and brings terrific satisfaction.*

**Distributing Project Information**

The *Information Distribution* process is concerned with getting stakeholders information about the project in a timely manner. This can come about in several ways: status reports, project meetings, review meetings, and so on. Status reports are actually part of the work performance information you saw in the output of the Direct and Manage Project Execution process. Status reports inform stakeholders about where the project is today in regard to project schedule and budget, for example. They also describe what the project team has accomplished to date. This might include milestones completed to date, the percentage of schedule completion, and what
remains to be completed. The Information Distribution process describes how this report is distributed and to whom.

In the Information Distribution process, the communications management plan that was defined during the Communications Planning process is put into action, and it’s the only input to this process. Communication and Information Distribution work together to report the progress of the project team.

Information Distribution has several tools and techniques, which you’ll look at next.

**Tools and Techniques of Information Distribution**

The tools and techniques of this process are as follows:

- Communication skills
- Information gathering and retrieval systems
- Information distribution methods
- Lessons learned process

Communication skills are probably the single most important skill in your project management toolbox. You’ll start with this tool and technique.

**Developing Great Communication Skills**

Every aspect of your job as a project manager will involve communications. It has been estimated that project managers spend as much as 90 percent of their time communicating in one form or another. Therefore, communication skills are arguably one of the most important skills a project manager can have. They are even more important than technical skills. Good communication skills foster an open, trusting environment. The ability to communicate well is a project manager’s best asset.

**Exam Spotlight**

According to the *PMBOK Guide*, communication skills are not the same as project management communication. They’re related but not the same. Communication skills are a specific set of abilities used to create a message, transmit the message, and assure it is received and understood. Project management communication is the act of preparing and distributing information regarding the project (using communication skills).

Throughout this book I’ve emphasized how important good communication skills are. Now I’ll discuss the act of communication, listening behaviors, and conflict resolution. You’ll employ each of these techniques with your project team, stakeholders, customers, and management team.
Information Exchange

Communication is the process of exchanging information. All communication includes three elements:

Sender   The sender is the person responsible for putting the information together in a clear and concise manner. The information should be complete and presented in a way that the receiver will be able to correctly understand it. Make your messages relevant to the receiver. Junk mail is annoying, and information that doesn’t pertain in any way whatsoever to the receiver is nothing more than that.

Message   The message is the information being sent and received. It might be written, verbal, nonverbal, formal, informal, internal, external, horizontal, or vertical. Horizontal communications are messages sent and received to peers. Vertical communications are messages sent and received down to subordinates and up to executive management.

Make your messages as simple as you can to get your point across. Don’t complicate the message with unnecessary detail and technical jargon that others might not understand. A simple trick that helps clarify your messages, especially verbal messages, is to repeat the key information periodically. Public speakers are taught that the best way to organize a speech is to first tell the audience what you’re going to tell them; second, tell them; and third, tell them what you just told them.

Receiver   The receiver is the person for whom the message is intended. They are responsible for understanding the information correctly and making sure they’ve received all the information.

Keep in mind that receivers filter the information they receive through their knowledge of the subject, culture influences, language, emotions, attitudes, and geographic locations. The sender should take these filters into consideration when sending messages so that the receiver will clearly understand the message that was sent.

This book is an example of the sender-message-receiver model. I’m the sender of the information. The message concerns topics you need to know to pass the PMP exam (and if I’ve done my job correctly, is written in a clear and easily understood format). You, the reader, are the receiver.

METHODS OF INFORMATION EXCHANGE

Senders, receivers, and messages are the elements of communication. The way the sender packages or encodes the information and transmits it and the way the receiver unpacks or decodes the message are the methods of communication exchange.
Senders encode messages. Encoding is a method of putting the information into a format the receiver will understand. Language, pictures, and symbols are used to encode messages. Encoding formats the message for transmitting.

Transmitting is the way the information gets from the sender to the receiver. Spoken words, written documentation, memos, email, voicemail, and so on, are all transmitting methods.

Decoding is what the receiver does with the information when they get it. They convert it into an understandable format. Usually, this means they read the memo, listen to the speaker, read the book, and so on.

**FORMS OF COMMUNICATION**

Communication occurs primarily in written or verbal form. Granted, you can point to something or indicate what you need with motions, but usually you use the spoken or written word to get your message across.

Verbal communication is easier and less complicated than written communication, and it’s usually a fast method of communication. Written communication, on the other hand, is an excellent way to get across complex, detailed messages. Detailed instructions are better provided in written form because it gives the reader the ability to go back over information they’re not quite sure about.

Both verbal and written communications might take a formal or an informal approach. Speeches and lectures are examples of formal verbal communications. Most project status meetings take more of a formal approach, as do most written project status reports. Generally speaking, the project manager should take an informal approach when communicating with stakeholders and project team members outside of the status meetings. This makes you appear more open and friendly and easier to approach with questions and issues.

**Effective Listening Skills**

What did you say? Often we think we’re listening when we really aren’t. In all fairness, we can take in only so much information at one time. But it’s important to perform active listening when someone else is speaking. As a project manager, you will spend the majority of your time communicating with team members, stakeholders, customers, vendors, and others. This means you should be as good a listener as you are a communicator.

You can use several techniques to improve your listening skills. Many books are devoted to this topic, so I’ll try to highlight some of the most common techniques here:

- **Appear interested in what the speaker is saying.** This will make the speaker feel at ease and will benefit you as well. By acting interested, you become interested and thereby retain more of the information being presented.

- **Making eye contact with the speaker is another effective listening tool.** This lets the speaker know you are paying attention to what they’re saying and are interested.

- **Put your speaker at ease by letting them know beforehand that you’re interested in what they’re going to talk about and that you’re looking forward to hearing what they have to say.** While they’re speaking, nod your head, smile, or make comments when and if appropriate to let the speaker know you understand the message. If you don’t understand something and are in the proper setting, ask clarifying questions.
Another great trick that works well in lots of situations is to recap what the speaker said in your own words and tell it back to them. Start with something like this, “Let me make sure I understand you correctly, you’re saying,” and ask the speaker to confirm that you did understand them correctly.

Just as your mother always said, it’s impolite to interrupt. Interrupting is a way of telling the speaker that you aren’t really listening and you’re more interested in telling them what you have to say than listening to them. Interrupting gets the other person off track, they might forget their point, and it might even make them angry.

Not to disagree with Mom, but there probably are some occasions where interrupting is appropriate. For example, if you’re in a project status meeting and someone wants to take the meeting off course, sometimes the only way to get the meeting back on track is to interrupt them. You can do this politely. Start first by saying the person’s name to get their attention. Then let them know that you’d be happy to talk with them about their topic outside of the meeting or add it to the agenda for the next status meeting if it’s something everyone needs to hear. Sorry, Mom.

**Resolving Conflicts**

I said earlier in this chapter that if you have more than one person working on your project, you have a team. Here’s another fact: if you have more than one person working on your project, you’ll have conflict. I put conflict resolution in the communication section because conflict resolution involves communication, as you’ll see in a moment.

Everyone has desires, needs, and goals. Conflict comes into the picture when the desires, needs, or goals of one party are incompatible with the desires, needs, or goals of another party (or parties). *Conflict*, simply put, is the incompatibility of goals, which often leads to one party resisting or blocking the other party from attaining their goals. Wait—this doesn’t sound like a party!

There are five ways of resolving conflict that might show up on the exam:

**Forcing**  *Forcing* is just as it sounds. One person forces a solution on the other parties. This is where the boss puts on the “Because I’m the boss and I said so” hat. Although this is a permanent solution, it isn’t necessarily the best solution. People will go along with it because, well, they’re forced to go along with it. It doesn’t mean they agree with the solution. This isn’t the best technique to use when you’re trying to build a team. This is an example of a win-lose conflict resolution technique. The forcing party wins, and the losers are those who are forced to go along with the decision.

**Smoothing**  *Smoothing* does not lead to a permanent solution. It’s a temporary way to resolve conflict where someone attempts to make the conflict appear less important than it is. Everyone looks at each other and scratches their head and wonders why they thought the conflict was such a big deal anyway. As a result, a compromise is reached, and everyone feels good about the solution until they get back to their desk and start thinking about the issue again. When they realize that the conflict was smoothed over and really is more important than they were led to believe, they’ll be back at it, and the conflict will resurface. This is an example of a lose-lose conflict resolution technique because neither side wins.
Compromise  Compromise is achieved when each of the parties involved in the conflict gives up something to reach a solution. Everyone involved decides what they will give on and what they won’t give on, and eventually through all the give and take, a solution is reached. Neither side wins or loses in this situation. As a result, neither side is really gung ho about the decision that was reached. They will drag their feet and reluctantly trudge along. If, however, both parties make firm commitments to the resolution, then the solution becomes a permanent one.

Confrontation  Confrontation is also called problem solving and is the best way to resolve conflict. One of the key actions you’ll perform with this technique is a fact-finding mission. The thinking here is that one right solution to a problem exists, and the facts will bear out the solution. Once the facts are uncovered, they’re presented to the parties, and the decision will be clear. Thus, the solution becomes a permanent one and the conflict expires. This is the conflict resolution approach project managers use most often and is an example of a win-win conflict resolution technique.

Withdrawal  Withdrawal never results in resolution. This occurs when one of the parties gets up and leaves and refuses to discuss the conflict. It is probably the worst of all the techniques because nothing gets resolved. This is an example of a lose-lose conflict resolution technique.

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Exam Spotlight

Know each of the conflict resolution techniques for the exam. Also remember that these techniques will not necessarily yield long-term results. The smoothing and withdrawal techniques have temporary results and aren’t always good techniques to use to resolve problems. Resolutions reached through forcing, compromise, and confrontation techniques might not always be satisfying for all parties, but they tend to produce longer-lasting results.

Keep in mind that group size makes a difference when you’re trying to resolve conflict or make decisions. Remember the channels of communication you learned about in Chapter 4? The larger the group, the more lines of communication and the more difficult it will be to reach a decision. Groups of 5 to 11 people have been shown to make the most accurate decisions.

Use communication, listening, and conflict resolution skills wisely. As a project manager, you’ll find that your day-to-day activities encompass these three areas the majority of the time. Project managers with excellent communication skills can work wonders. Communication won’t take the place of proper planning and management techniques, but a project manager who communicates well with their team and the stakeholders can make up for a lack of technical skills any day, hands down. If your team and your stakeholders trust you and you can communicate the vision and the project goals and report on project status accurately and honestly, the world is your oyster.
Information Gathering and Retrieval Systems

The information gathering and retrieval systems tool and technique of the Information Distribution process includes ways that project information is stored and shared among project team members. You've probably used one or more of these gathering and retrieval systems such as project management software, manual filing systems, intranet project sites, and electronic databases.

Information Distribution Methods

Information distribution methods are ways of getting the project information to the project team or stakeholders. As the name implies, these are ways to distribute the information and might include email, hard copy, voicemail, videoconferencing, and so on.

Exam Spotlight

Don't confuse information gathering and retrieval systems with information distribution methods. Remember that retrieval systems are ways for the project team to get at project information, while distribution methods are ways of getting the information into the hands of the stakeholders or team members.

Lessons Learned Process

Lessons learned are information that you gather and document throughout the course of the project that can be used to benefit the current project, future projects, or other projects currently being performed by the organization. Lessons learned might include positive as well as negative lessons.

During the Information Distribution process, you'll begin conducting lessons learned meetings focusing on many different areas depending on the nature of your project. These areas might include project management processes, product development, technical processes, project team performance, stakeholder involvement, and so on.

Lessons learned meetings should always be conducted at the end of project phases and at the end of the project at minimum. Team members, stakeholders, vendors, and others involved on the project should participate in these meetings. It's important to understand, and to make your team members understand, that this is not a finger-pointing meeting. The purpose of lessons learned is to understand what went well and why—so you can repeat it on future projects—and what didn't go so well and why—so you can perform differently on future projects. These meetings can make good team-building sessions because you're creating an atmosphere of trust and sharing and you're building on each other's strengths to improve performance.

Some of the updates that might occur as a result of lessons learned meetings are updates to the lessons learned knowledge base; updates to policies, procedures, processes, and business skills; and updates to the risk management plan.
Exam Spotlight

According to the PMBOK Guide, it's a project manager's professional obligation to hold lessons learned meetings.

I’ll talk more about lessons learned in Chapter 11, “Controlling Work Results and Closing Out the Project.”

Outputs of Information Distribution

The first output of the Information Distribution process is organizational process assets updates. The updates here consist of six elements:

Lessons learned documentation  You'll document the lessons learned I talked about earlier as this output. You should document the reasons or causes for the issues, the corrective action taken and why, and any other information that future projects might benefit from.

Project records  Project records include, as you might guess, memos, correspondence, and other documents concerning the project. The best place to keep information like this is in a project notebook or in a set of project notebooks, depending on the size of the project. The project notebooks are ordinary three-ring binders where project information gets filed. They are maintained by the project manager or project office and contain all information regarding the project. You could also keep the information on a project website, the company intranet, or CDs. If you're keeping the information electronically, make certain it's backed up regularly. Individual team members might keep their own project records as well in notebooks or electronically. These records serve as historical information once the project is closed.

Project reports  Project reports include the project status reports and minutes from project meetings. If you're keeping an issues log, the issues would be included with the project reports as well.

Project presentations  Project presentations involve presenting project information to the stakeholders and other appropriate parties when necessary. The presentations might be formal or informal and depend on the audience and the information being communicated.

Feedback from stakeholders  This one ties into lessons learned. Feedback you receive from the stakeholders that can improve future performance on this project or future projects should be captured and documented. If the information has an impact on the current project, distribute it to the appropriate team members so that future project performance can be modified to improve results.

Stakeholder notifications  Remember that the focus of this process is distributing information, so this element fits because you'll want to notify stakeholders when you have implemented
solutions and approved changes. This also involves informing them of project status. I'll cover project status review meetings in Chapter 9, “Measuring and Controlling Project Performance.”

The only other output of this process is requested changes, which I've talked about before. In the next chapter, you'll examine the processes associated with finding and selecting vendors, administering contracts, managing stakeholders and team members, quality assurance, and reporting on performance.

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**Project Case Study: New Kitchen Heaven Retail Store**

Dirk Perrier logs on and finds the following email addressed to all the stakeholders and project team members from you:

**Project Progress Report**

**Project Name**  Kitchen Heaven Retail Store  
**Project Number**  081501-1910  
**Prepared By**  Project manager  
**Date**  September 20, 2006

**Section 1: Action Items**

- **Action Item 1:** Call cable vendor. Responsible party: Ricardo. Resolution date: 9/14
- **Action Item 2:** Check T1 connection status. Responsible party: Ricardo. Resolution date: Pending
- **Action Item 3:** Build-out begins. Responsible party: Jake. Resolution date: Pending

**Section 2: Scheduled and Actual Completion Dates**

- **Sign lease:** Scheduled: 8/21/06. Completed: 8/21/06
- **Gomez contract signed:** Scheduled: 9/12/06. Completed: 9/12/06
- **Ethernet cable run:** Scheduled: 9/18/06. Completed: 9/19/06
- **Build-out started:** Scheduled: 9/20/06. Completed: Open

**Section 3: Activity That Occurred in the Project This Week**

The Ethernet cable run was completed without a problem.

Gomez construction started the build-out process. This task was fast-tracked with the Ethernet cable run as planned.

Jill made initial calls regarding retail products order.
Section 4: Progress Expected This Reporting Period Not Completed
None. Project is on track to date.

Section 5: Progress Expected Next Reporting Period
Build-out will continue. Jake reports that Gomez expects to have electrical lines run and dry-wall started prior to the end of the next reporting period.

Ricardo should have a T1 update. There’s a slim possibility that the T1 connection will have occurred by next reporting period.

Section 6: Issues
We had to start the build-out on the last day of the cable run (this is called fast-tracking) to keep the project on schedule. Jake and Ricardo reported only minor problems with this arrangement in that the contractors got into each other’s way a time or two. This did not impact the completion of the cable run because most of day two this team was in the back room and Gomez’s crew was in the storefront area.

A key member of the Gomez construction crew was out last week because of a family emergency. Gomez assures us that it will not impact the build-out schedule. They replaced the team member with someone from another project, so it appears so far that the build-out is on schedule.

Ricardo is somewhat concerned about the T1 connection because the phone company won’t return his calls inquiring about status. We’re still ahead of the curve on this one because hardware isn’t scheduled to begin testing until January 21. Hardware testing depends on the T1 connection. This is a heads-up at this point, and we’ll carry this as an issue in the status report going forward until it’s resolved.

One of the gourmet food item suppliers Jill uses regularly went out of business. She is in the process of tracking down a new supplier to pick up the slack for the existing stores and supply the gourmet food products for the new store.

Sponsor Update
“Good job on the status,” Dirk says as you pick up the phone. “I was beginning to wonder when we’d see some action on the project, but it looks like things are underway.”

“A lot has happened in just the past two weeks, as you can see. I’ll publish these project status updates twice a month in conjunction with the regular project status meetings. Starting in January, I’ll publish them once a week until project completion.”

“Keep me posted on that T1 line. That isn’t going to be a showstopper, is it?”

“We have a contingency plan in place,” you reply. “We talked about that last week.”

“OK. I’ll see you at the project meeting Friday.”

“See you then,” you say.
### Project Case Study Checklist

**Communication (reporting on work performance information)**
- Sender makes it clear and concise.
- There's no unnecessary technical jargon.
- Formal written communication is provided.
- It's the receiver's responsibility to understand information.
- The status report is a vertical and horizontal communication method.

**Direct and Manage Project Execution**
- Deliverables
- Work results
- Work performance information

**Develop Project Team**

**Information Distribution**
- Project information is delivered to stakeholders in a timely manner.
- The information distribution method is status reports via email and project meetings.
- The status report is part of the project reports filed in the project notebook or filed for future reference as historical information.

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**Understanding How This Applies to Your Next Project**

The topics in this chapter are some of my favorites because this is where project management shines—dynamic teams working under the direction of a capable, responsible leader who can effectively balance the needs of the team with the needs of the project (and ultimately the organization) and pull it all off successfully. There aren't many things better in an organization than a high-performing team working together to accomplish a well-understood goal. And it doesn't really matter whether the team members are all in the same company, department, or country. When they're working toward a common goal and functioning at the performing level, there's almost nothing they can't accomplish. The movies *Ocean's Eleven*, *Ocean's Twelve*, and *Ocean's 13* are good examples of strong leadership and dynamic teamwork at play. Although I'm certainly not advocating you turn to a life of crime, you can pick up a few pointers on how effective teams work from George Clooney and the gang.
So, how does this apply? As the project manager, it’s your responsibility, and dare I say duty, to acquire the best team members possible for your project. In my experience, this doesn’t always mean all my team members are highly qualified. To me, team fit and team dynamics are as important as the team members’ skills. I know some will disagree with me on this next point, but I believe it’s easier to train someone on a new skill (given they have the aptitude) than it is to take on a team member with an abrasive personality who is imminently qualified but can’t get along with anyone else on the team. Sometimes you really don’t have much choice when it comes to picking team members, as referenced in the “The Only Candidate” sidebar earlier in this chapter. When you find yourself in this situation, I recommend you lay down clear ground rules for communication, problem escalation, work assignments, and so on.

Make it a habit to read at least a couple of leadership books a month (or quarter or whatever you can fit into your schedule). You may already be familiar with the topic and think there isn’t anything new to learn. However, staying current on the topic will reinforce concepts that you already know and will remind you of other points that you forgot about and haven’t yet developed but know you should. And occasionally, you will pick up a gold nugget of information that is new and immediately applicable to your situation.

Leadership skills are invaluable, but communication skills are just as important. In my opinion, it’s difficult to be an effective leader without also being an effective communicator. My guess is that if you take a close look at the leaders you respect and admire, you’ll discover they are also good communicators. And communication is mostly listening—not talking. I make it a habit to practice active listening. It’s amazing what people will tell you when you smile politely and ask an open-ended question or two.

Summary

This chapter described four processes from the Executing process group: Direct and Manage Project Execution, Acquire Project Team, Develop Project Team, and Information Distribution.

In Direct and Manage Project Execution, the project plans come to life. Activities are authorized to begin and the product, result, or service of the project is produced. Status review meetings are held to inform stakeholders of project progress and updates.

Acquire Project Team involves negotiation with other functional managers, project managers, and organizational personnel to obtain human resources to complete the work of the project. The project manager might not have control over who will be a part of the team. Availability, ability, experience, interests, and costs are all enterprise environmental factors that should be considered when you are able to choose team members.

Develop Project Team involves creating an open, inviting atmosphere where project team members will become efficient and cooperative, increasing productivity during the course of the project. It’s the project manager’s job to bring the team together into a functioning, productive group.

Team development has four stages, according to Bruce Tuckman’s model: forming, storming, norming, and performing. All groups proceed through these stages, and the introduction of a new team member will always start the process over again.
Co-location is physically placing team members together in the same location. This might also include a common meeting room or gathering area where team members can meet and collaborate on the project.

Several motivational theories exist, including reward and recognition, Maslow's hierarchy of needs, the Hygiene Theory, the Expectancy Theory, and the Achievement Theory. These theories conjecture that motivation is driven by several desires, including needs, anticipation of expected outcomes, or needs for achievement, power, or affiliation. The Hygiene Theory proposes that hygiene factors prevent dissatisfaction.

Leaders inspire vision and rally people around common goals. Theory X leaders think most people are motivated only through punishment, money, or position. Theory Y leaders think most people want to perform the best job they can. The Contingency Theory says that people naturally want to achieve levels of competency and will continue to be motivated by the desire for competency even after competency is reached.

Leaders exhibit five types of power: reward, punishment, expert, legitimate, and referent power.

Communication skills are the most important skills a project manager exercises. People who send messages are responsible for making sure the messages are clear, concise, and complete. Receivers are responsible for understanding the messages correctly and making sure they've received all the information.

Listening skills put speakers at ease. Several techniques tell your speaker you're listening attentively, including making eye contact, nodding, asking clarifying questions, and limiting interruptions.

Information Distribution is a matter of getting project information out to the stakeholders. Information retrieval systems generally store project information and include project management software, filing cabinets, and electronic databases. Information distribution methods are ways to get the information to the stakeholders and include email, paper, voicemail, or videoconferencing.

### Exam Essentials

**Be able to identify the distinguishing characteristics of Direct and Manage Project Execution.**

Direct and Manage Project Execution is where the work of the project is performed, and the majority of the project budget is spent during this process.

**Be able to name the four stages of group formation.**

The four stages of group formation are forming, storming, norming, and performing.

**Be able to define Maslow's highest level of motivation.**

Self-actualization occurs when a person performs at their peak and all lower-level needs have been met.

**Be able to name the five types of power.**

The five levels of power are reward, punishment, expert, legitimate, and referent.
Be able to differentiate between senders and receivers of information. Senders are responsible for clear, concise, complete messages, while receivers are responsible for understanding the message correctly.

Be able to identify the five styles of conflict resolution. The five styles of conflict resolution are forcing, smoothing, compromise, confrontation, and withdrawal.

Key Terms

I've discussed in detail the processes you'll use while developing your project team. You need to understand each of these processes to effectively build your team and know them by the names used in the PMBOK to be successful on the exam:

- Acquire Project Team
- Develop Project Team
- Direct and Manage Project Execution
- Information Distribution

You learned a lot of new key words in this chapter. PMI has worked hard to develop and define standard project management terms that apply across industries. Here is a list of some of the terms you came across in this chapter:

<table>
<thead>
<tr>
<th>Achievement Theory</th>
<th>Motivation-Hygiene Theory</th>
</tr>
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<tbody>
<tr>
<td>administrative closure procedure</td>
<td>politics</td>
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<tr>
<td>co-location</td>
<td>power</td>
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<tr>
<td>communication</td>
<td>preassignment</td>
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<td>conflict</td>
<td>project presentations</td>
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<td>confrontation</td>
<td>project records</td>
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<td>corrective actions</td>
<td>project reports</td>
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<tr>
<td>Expectancy Theory</td>
<td>recognition and rewards</td>
</tr>
<tr>
<td>Hygiene Theory</td>
<td>team building</td>
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<tr>
<td>information distribution methods</td>
<td>Theory X</td>
</tr>
<tr>
<td>information gathering and retrieval systems</td>
<td>Theory Y</td>
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<tr>
<td>lessons learned</td>
<td>virtual teams</td>
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<tr>
<td>Maslow's hierarchy of needs</td>
<td></td>
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</tbody>
</table>
Review Questions

1. You are a project manager for an international marketing firm. You are ready to assign resources to your new project using a work authorization system. Which of the following statements is not true?
   A. Work authorization systems clarify and initiate the work for each work package.
   B. Work authorization systems are written procedures defined by the organization.
   C. Work authorization systems are used throughout the project Execution processes.
   D. Work authorization systems are used throughout the Execution processes and are a tool and technique of the Direct and Manage Project Execution process.

2. You are a project manager for a growing dairy farm. It offers its organic dairy products regionally and is expanding its operations to the West Coast. It is in the process of purchasing and leasing dairy farms to get operations underway. You are in charge of the network operations part of this project. An important deadline is approaching that depends on the successful completion of the testing phase. You’ve detected some problems with your hardware in the testing phase and discover that the hardware is not compatible with other network equipment. You take corrective action and exchange the hardware for more compatible equipment. Which of the following statements is true?
   A. This is not a corrective action because corrective action involves human resources, not project resources.
   B. Corrective action is taken here to make sure the future project outcomes are aligned with the project management plan.
   C. Corrective action is not necessary in this case because the future project outcomes aren’t affected.
   D. Corrective action serves as the change request to authorize exchanging the equipment.

3. You are a project manager for a growing dairy farm. It offers its organic dairy products regionally and is expanding its operations to the West Coast. It’s in the process of purchasing and leasing dairy farms to get operations underway. The subproject manager in charge of network operations has reported some hardware problems to you. You’re also having some other problems coordinating and integrating other elements of the project. Which of the following statements is true?
   A. You are in the Direct and Manage Project Execution process.
   B. Your project team doesn’t appear to have the right skills and knowledge needed to perform this project.
   C. You are in the Information Distribution process.
   D. Your project team could benefit from some team-building exercises.
4. Which of the following processes serve as inputs to each other?
   A. Executing, and Monitoring and Controlling
   B. Executing and Closing
   C. Planning, and Monitoring and Controlling
   D. Executing and Initiation

5. Your team members have just completed training on specialized equipment. This is one of the work results you've gathered and recorded. Which of the following outputs of the Direct and Manage Project Execution process does this describe?
   A. Corrective action
   B. Deliverable
   C. Preventive action
   D. Work performance information

6. You are reporting on project elements such as schedule status, deliverables completion, lessons learned, and resource utilization. Which of the following outputs of the Direct and Manage Project Execution does this describe?
   A. Corrective action
   B. Deliverable
   C. Preventive action
   D. Work performance information

7. You are in the process of making project staff assignments. You have several candidates for a position on the project team that requires specific qualifications. All the candidates seem to meet the qualifications. You also consider personal interests, characteristics, and availability of these potential candidates. Which of the following is true?
   A. You are considering the organizational process assets input of the Develop Project Team process.
   B. You are considering the staffing management plan input of the Develop Project Team process.
   C. You are considering the enterprise environmental factors input of the Acquire Project Team process.
   D. You are considering the roles and responsibilities input of the Acquire Project Team process.
8. Your project team consists of 12 people in the same building you’re located in, 4 people from the West Coast office, 2 people from the Kansas City office, and 6 people from the London office. Your office works different hours than all the other offices. Additionally, not all of the resources in your building are available at the same times during the day. Three of the 12 team members work swing shift hours. You use tools like web conferencing and email to distribute information to the team. Which of the following is true?

A. This question describes the staffing management plan from the Acquire Project Team process and communication skills from the Information Distribution process.

B. This question describes resource availability from the Develop Project Team process and information distribution methods from the Information Distribution process.

C. This question describes virtual teams from the Acquire Project Team process and information distribution methods from the Information Distribution process.

D. This question describes project staff assignments from the Develop Project Team process and communication skills from the Information Distribution process.

9. You are the project manager for a cable service provider. Your team members are amiable with each other and are careful to make project decisions jointly. Which of the following statements is true?

A. They are in the smoothing stage of Develop Project Team.

B. They are in the norming stage of Develop Project Team.

C. They are in the forming stage of Develop Project Team.

D. They are in the forcing stage of Develop Project Team.

10. You are the project manager for a cable service provider. Your project team is researching a new service offering. They have been working together for quite some time and are in the performing stage of team development. A new member has been introduced to the team. Which of the following statements is true?

A. The team will start all over again with the storming stage.

B. The team will continue in the performing stage.

C. The team will start all over again with the forming stage.

D. The team will start all over again at the storming stage but quickly progress to the performing stage.

11. You are the project manager for a cable service provider. Your project team is researching a new service offering. They have been working together for quite some time and are in the performing stage of Develop Project Team. This stage of Develop Project Team is similar to which of the following?

A. Smoothing

B. Achievement Theory

C. Hygiene Theory

D. Self-actualization
12. Receivers in the communication model filter their information through all of the following except _________________.
   A. culture
   B. knowledge of subject
   C. habits
   D. language

13. You’ve promised your team two days of paid time off plus a week’s training in the latest technology of their choice if they complete their project ahead of schedule. This is an example of which of the following?
   A. Achievement Theory
   B. Expectancy Theory
   C. Maslow’s theory
   D. Contingency Theory

14. Your team is split between two buildings on either side of town. As a result, the team isn’t very cohesive because the members don’t know each other very well. The team is still in the storming stage because of the separation issues. Which of the following should you consider?
   A. Corrective action
   B. Co-location
   C. Training
   D. Conflict resolution

15. Which conflict resolution technique do project managers use most often?
   A. Smoothing
   B. Norming
   C. Confronting
   D. Forcing

16. You are a fabulous project manager, and your team thinks highly of you. You are well respected by the stakeholders, management team, and project team. When you make decisions, others follow your lead as a result of which of the following?
   A. Referent power
   B. Expert power
   C. Legitimate power
   D. Punishment power
17. Theory Y managers believe which of the following?
   A. People are motivated only by money, power, or position.
   B. People will perform their best if they're given proper motivation and expectations.
   C. People are motivated to achieve a high level of competency.
   D. People are motivated by expectation of good outcomes.

18. You have accumulated project information throughout the project and need to distribute some important information you just received. Which of the following is not an information distribution method?
   A. Electronic databases
   B. Videoconferencing
   C. Electronic mail
   D. Voicemail

19. You know that the next status meeting will require some discussion and a decision for a problem that has surfaced on the project. To make the most accurate decision, you know that the number of participants in the meeting should be limited to ________ _
   A. 1 to 5
   B. 5 to 11
   C. 7 to 16
   D. 10 to 18

20. You are holding end-of-phase meetings with your team members and key stakeholders to learn what has hindered and helped the project team's performance of the work. All of the following are true regarding this situation except for which one?
   A. The information learned from these meetings concerns processes and activities that have already occurred, so it should be documented because the information is only useful for future projects.
   B. These meetings are called lessons learned meetings and they're a tool and technique of the Information Distribution process. They're also a good team-building activity.
   C. Project reports, part of the organizational process output of the Information Distribution process, include status meetings and lessons learned (which this question describes).
   D. These meetings should be documented as part of the lessons learned documentation, which is an element of the organizational process assets updates output of the Information Distribution process.