Module Six: Project Human Resource, Communications, and Stakeholder Management

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To be a productive part of project operations, participants need to understand their assigned roles and responsibilities, be properly and continuously engaged in project activities, and be kept apprised of project progress and any impediments that may occur so they can assist in their resolution.

Reporting relationships, staffing requirements, and team development must be appropriately structured to prevent missteps and errors from hindering project evolution. Communication efforts must be focused and supervised so that practitioners are kept aware of project progress and information is distributed in a timely and appropriate manner. And stakeholders must be kept continuously engaged in helping the team meet project requirements and reach stated goals.

The effective coordination of interaction and communication among project participants enhances the possibility of project success and will ensure harmony and satisfaction among those executing the project's tasks and completing its activities.

Learning Objectives

After completing this module, you should be able to:

1. Recognize and manage for constraints and limited availability of human resources
2. Employ interpersonal and management skills to address and manage conflicts among stakeholders
3. Create stakeholder management strategies to maximize positive stakeholder impacts and minimize negative stakeholder impacts
4. Describe the importance of effective communication in the context of project management

Constraints and Limited Human Resources

Project human resource management is concerned not only with identifying which human resources will be necessary to complete project activities but also pinpointing when and how long those resources will be required. Human resources—like most other resources—are limited, and may have to be shared between projects, so it is important for practitioners to ensure that appropriate personnel are involved when and where they are needed, but not tied up unnecessarily if their services are not immediately required.

Resource Constraints

Project practitioners may be constrained by several factors that will limit the use of project human resources. Important resources may only be available to assist in short, specific windows of time. Contracts, collective bargaining agreements, or other formal agreements may impose restraints on the use of specific resources or resource types. And, in some cases, individuals may be "pre-assigned" to work on a project due to contractual obligations or other promises made in a project charter.

To help understand and coordinate the requirements and timing of a project's human resources, practitioners should consider using a resource calendar to document when each resource will be needed.

Resource calendars should be very specific about the time frame and the quantity of resources needed. They may list required resources by name (e.g., Karla, Ray), type (e.g., software developer, tester), or department or function (e.g., product development, quality assurance). They should show how much time each resource will be needed on the project and should aggregate this information for quick and easy understanding by interested parties. In some cases, practitioners may include maximum allowances or other project limits in their calendars to help in coordinating and scheduling resources appropriately.

Resource	Total Hours Needed	April					May				June		
		4/1	4/8	4/15	4/22	4/29	5/6	5/13	5/20	5/27	6/3	6/10	6/17
K. Stevens	42	7 h	2 h	6 h		3 h	7 h		5 h	7 h	5 h		
S. Timmons	38	8 h	8 h	8 h	8 h		4 h					2 h	
M. Brady	17	4 h								4 h		1 h	8 h
A. Fleming	36	3 h	3 h	3 h	3 h	3 h	3 h	3 h	3 h	3 h	3 h	3 h	3 h
N. Page	33				5 h	6 h			5 h	6 h		5 h	6 h

If a resource calendar shows that available resources and project constraints are in conflict, project participants may need to apply resource leveling or resource smoothing techniques to realign resources and needs. Resource leveling adjusts the start and finish dates in the schedule to align with resource availability. Resource smoothing spreads project activities out among several resources so that work can be completed without exceeding predefined limits or a specific resource's capability or workload.

Resource Histograms

To evaluate whether personnel requirements align with resource availability, practitioners may choose to create a resource histogram like the one below.

A resource histogram is a bar chart that illustrates how many hours a person, group, or project team will be needed in order to complete the project work. These charts often include a horizontal line that indicates the maximum availability of a resource; if a resource's bar

exceeds this line, the project team will need to come up with solutions to explain how they will resolve this impediment—by changing the requirements, adding resources to the project, or adjusting the work to be spread among several resources.

As can be seen in the chart below, histograms can illustrate the different types of resources needed. The activity-specific chart on the left shows the number of hours that Julie, John, and Sam will be needed to write code for a program. The functional chart on the right shows the total hours that organizational units or functions will be available to the project team.
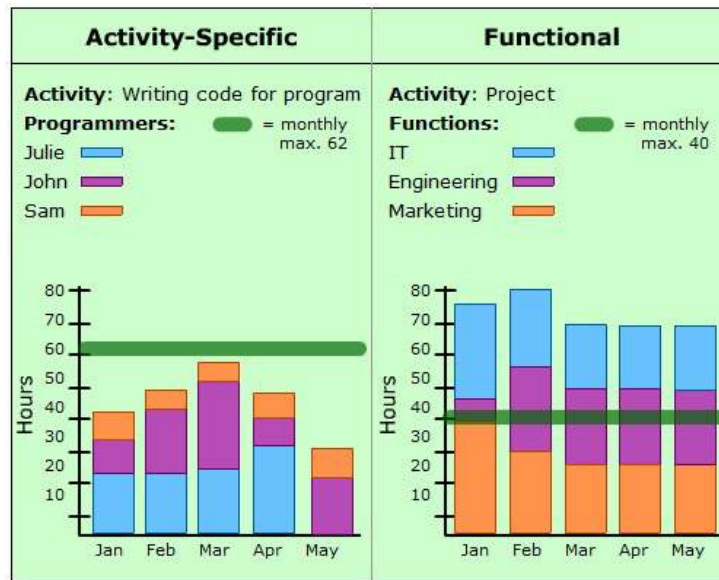
The activity-specific calendar is for the activity "Writing code for program." The legend shows that Julie, John, and Sam will be the coders, and the monthly maximum for each of their hours combined is 62. January has Julie coding for 12 hours, John coding for 10 hours, and Sam coding for eight hours. February shows Julie coding for 12 hours, John coding for 20 hours and Sam coding for five hours. The numbers for March, April, and May are given as well, but in no case does the sum total more than 62 hours.

The functional resource calendar on the right is for the entire project; it shows when and how long the IT, engineering, and marketing departments will be working on this project. The chart reveals that a problem currently exists that will need to be resolved—specifically that the required resources substantially overrun the maximum monthly allowances of 40 hours for all departments.

In this situation, the project team can apply one or both of two primary strategies: 1) acquiring additional resources or 2) rearranging the schedule so that the resources available fulfill the new requirements. When human resources are constrained (as in the right-most chart in the example above), and work is not able to be rescheduled (if, for instance the project is working under a tight deadline and the work is on the project's critical path), the project management team should document how additional staff will be acquired to complete the work on schedule.
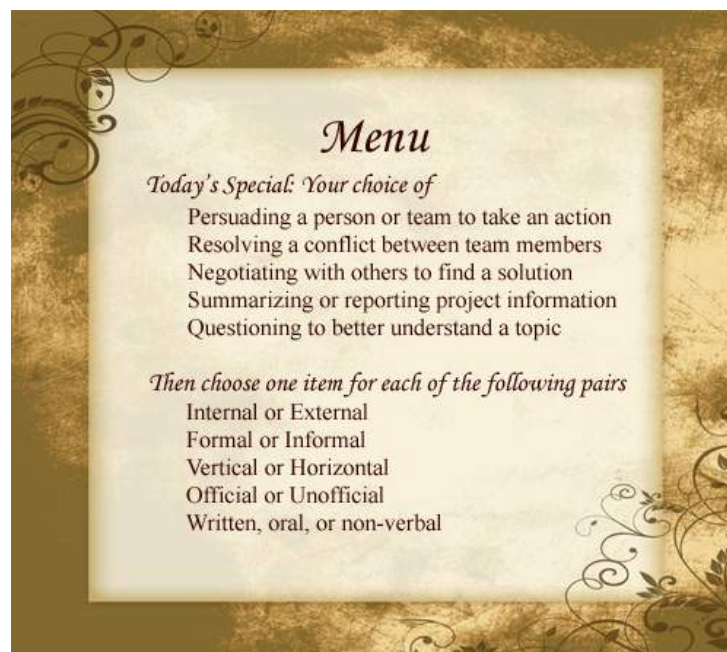
Working Around Constraints

The consequences of not successfully navigating around constraints can include having to change project baselines; these consequences can have grave effects if the project is not successful or the customer is not satisfied with the result. However, skilled project practitioners plan around these constraints: they assess the various inputs and use all the tools and techniques in their reach to secure a project team that will contribute to the success of the project.
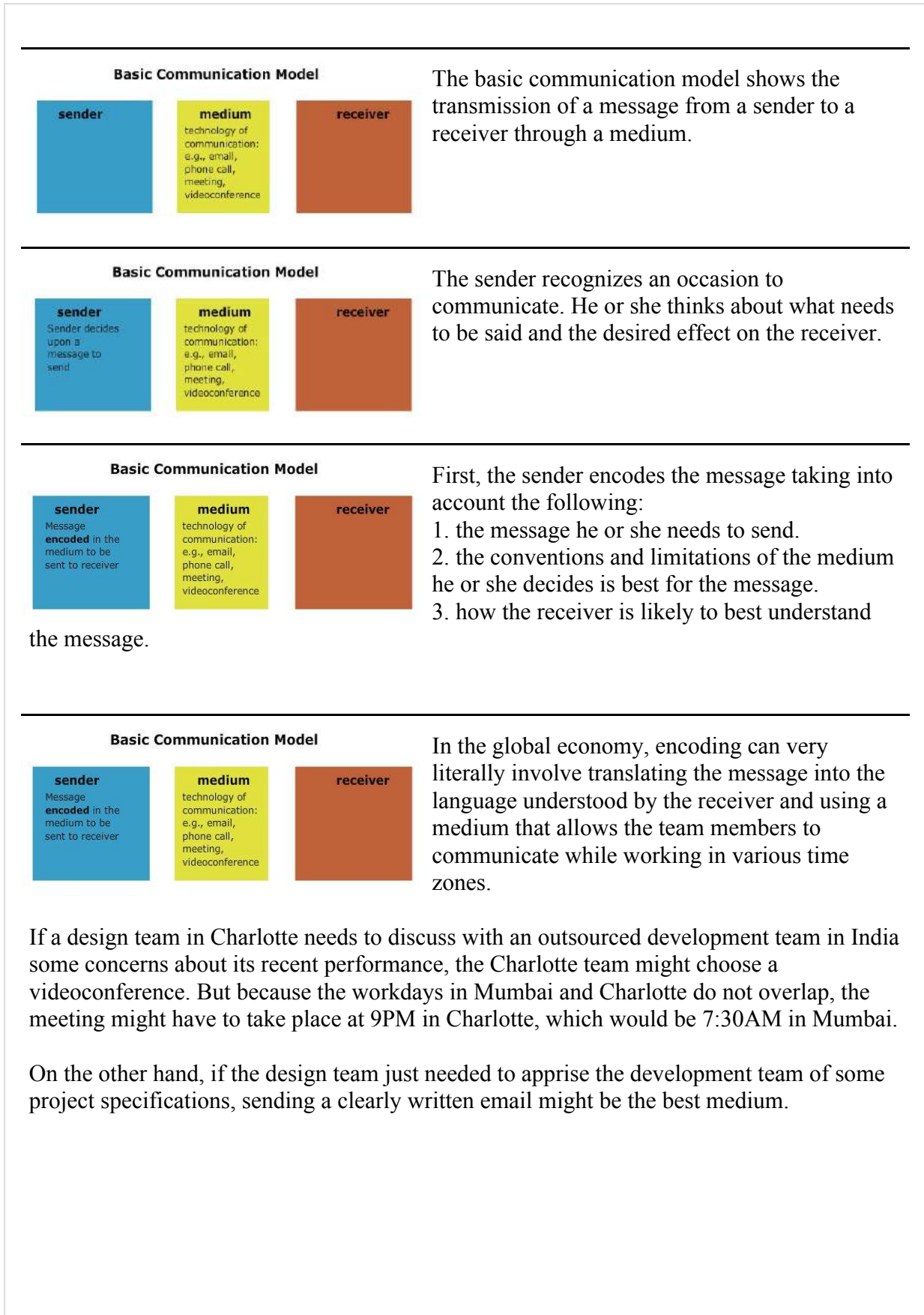

Project Communications

To prevent surprises and to ensure that the project continues to run effectively, the project manager will need to determine how he or she will keep everyone involved with the project apprised of its progress.

Communication makes up a large part of what project managers do, because they must coordinate many people to get the work done. Though communication is something we all do so regularly that we often don't think about it, there are many choices that we make each time we communicate with someone. Every time we discover a purpose for communicating (for example, fact-finding: identifying whether the customer has a preference of color or size of a project deliverable; resolving conflict: settling a dispute between team members who have varying ideas about the design of a deliverable), we make choices about how that message will be delivered (for example, internally: you find out that the customer really wanted the product to be red by calling Annette in the Sales department; externally: you consult with the customer directly to see which design she prefers). In fact, you can think about these choices in terms of a menu of purposes and methods that can be mixed and matched depending on the situation:

Menu

Today's Special: Your choice of
- Persuading a person or team to take an action
- Resolving a conflict between team members
- Negotiating with others to find a solution
- Summarizing or reporting project information
- Questioning to better understand a topic

Then choose one item for each of the following pairs
- Internal or External
- Formal or Informal
- Vertical or Horizontal
- Official or Unofficial
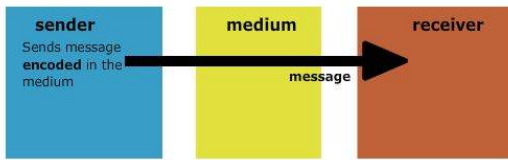- Written, oral, or non-verbal

A Basic Communications Model

Communications can be illustrated graphically with a basic communication model. The slideshow below demonstrates each step of this basic model.
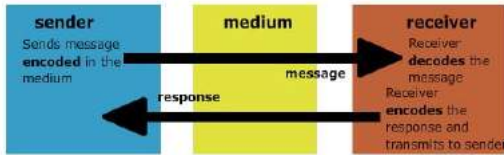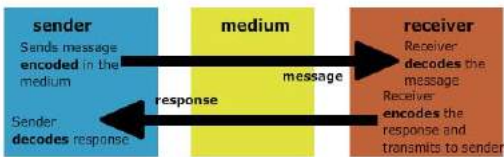
Basic Communication Model

sender | medium (technology of communication: e.g., email, phone call, meeting, videoconference) | receiver

The basic communication model shows the transmission of a message from a sender to a receiver through a medium.

Basic Communication Model

sender (Sender decides upon a message to send) | medium (technology of communication: e.g., email, phone call, meeting, videoconference) | receiver

The sender recognizes an occasion to communicate. He or she thinks about what needs to be said and the desired effect on the receiver.

Basic Communication Model

sender (Message encoded in the medium to be sent to receiver) | medium (technology of communication: e.g., email, phone call, meeting, videoconference) | receiver

First, the sender encodes the message taking into account the following:
1. the message he or she needs to send.
2. the conventions and limitations of the medium he or she decides is best for the message.
3. how the receiver is likely to best understand the message.

Basic Communication Model

sender (Message encoded in the medium to be sent to receiver) | medium (technology of communication: e.g., email, phone call, meeting, videoconference) | receiver

In the global economy, encoding can very literally involve translating the message into the language understood by the receiver and using a medium that allows the team members to communicate while working in various time zones.

If a design team in Charlotte needs to discuss with an outsourced development team in India some concerns about its recent performance, the Charlotte team might choose a videoconference. But because the workdays in Mumbai and Charlotte do not overlap, the meeting might have to take place at 9PM in Charlotte, which would be 7:30AM in Mumbai.

On the other hand, if the design team just needed to apprise the development team of some project specifications, sending a clearly written email might be the best medium.

Basic Communication Model

sender — Sends message **encoded** in the medium — medium — message — receiver

The message is sent to the receiver.

Basic Communication Model

sender — Sends message **encoded** in the medium — medium — message — receiver — Receiver **decodes** the message — response — Receiver **encodes** the response and transmits to sender

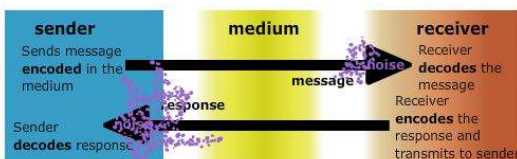If the sender made the correct choices about how to send the communication, the receiver will decode the message.

Basic Communication Model

sender — Sends message **encoded** in the medium — Sender **decodes** response — medium — message — response — receiver — Receiver **decodes** the message — Receiver **encodes** the response and transmits to sender

In the classical model of communication, the receiver provides feedback on the message by encoding his or her own response and transmitting it to the sender.

Basic Communication Model

sender — Sends message **encoded** in the medium — Sender **decodes** response — medium — message — response — receiver — Receiver **decodes** the message — Receiver **encodes** the response and transmits to sender

The sender decodes the feedback response and the communication event is complete.

Basic Communication Model

sender — Sends message **encoded** in the medium — Sender **decodes** response — medium — message — response — noise — receiver — Receiver **decodes** the message — Receiver **encodes** the response and transmits to sender

Anything that interferes with a message is called **noise**. Noise can be the crackle of a bad telephone signal or the splotches in text created by a printer low on toner. But noise can also come from the message itself if it is encoded without attention to how the receiver is likely to understand the message. Using too much jargon or describing technical issues in too much detail to a lay audience can create noise in a message worse than any bad telephone connection.

For each technology or medium of communication there are techniques that allow the sender to decrease the chances that noise or unintended effects will impede the message. Sometimes a technique can be as simple as making sure that videoconferencing equipment includes an adequate microphone so that the team members on the other end can hear everyone in the room well. (Omnidirectional microphones are generally best when only one microphone is available, and they should be placed in the middle of the conference table at which the team members are sitting.)

Noise can also have nontechnical causes. Voicemail, for instance, can be a very useful tool. But listeners often lose track of a long voicemail message because they can't see the speaker, they can't interact with the speaker, and it's not easy to rewind. To minimize the noise caused

by the lack of visual cues and lack of interactivity, voicemail messages should be brief and should include must-know contact information. Get to the point quickly, leaving the listener with the essentials of what they need to know to move forward. Restating a phone number at the end of the message is helpful so that the listener doesn't have to replay a message to retrieve these figures. Whether you believe leaving an effective voicemail to be a matter of technique or one of etiquette, it makes sense to think about the steps you can take to make each communication as effective as possible.

Communications Planning

Good communications strategy is usually accomplished by the project management team having planned for communications procedures at an initial stage of the project. This allows the cost and effort to be determined early in the process and also to be factored into the budget and schedule baselines.

An effective communications plan describes who should be communicated with, who should do the communicating, what should be communicated, why it should be communicated (purpose), when it should be communicated (frequency, time frame), and how it should be communicated (language, format, method, technology).

To create this plan, project managers need to consider a number of factors.

- What is the organizational structure (e.g., functional/projectized/matrix/composite), and what is the nature of relationships among stakeholders?
- What is the culture of the organization and its prevailing communication styles?
- What is the available technology for communication (email, Web pages, blogs, videoconferencing, etc.)?
- Are there any resources for adding new technology?
- Is there a need for training on communication or related technology?
- What frequency of communication will work based on all of the previously mentioned factors as well as the project's duration and complexity?

In addition, project managers should consider including the following elements in their plan:

Communication expectations	Expectations are crucial and should be understood by all stakeholders. These include format, frequency, style of content, level of detail, and person responsible for communication and intended recipients. Also outlined here are the technologies to be used in the project.
Process for communication about project progress	This section discusses types of common communications on the project, including project summary and review reports, status reports, and performance reports.
Status meetings and their attendance	Status meeting information such as time, frequency, location, and content might be carved out separately due to its importance to a project. It's the face-to-face forum for project progress reporting and issue resolution, a kind of engine for the project.

Stakeholder communication requirements	A project manager may want to highlight any differences here in how groups of stakeholders are expected to communicate throughout the project as in critical versus non-critical. The section also addresses the preferred medium, style, and frequency for stakeholder feedback as they are crucial to project planning and execution, as well as generally gaining support for the project in or outside of an organization.
Process for escalation of issues that cannot be resolved	When issues cannot be resolved, be they conflicts or just logistical issues in a project, they need to make their way to the project manager in some systematic way. This section outlines this process, including stating time frames.
Process for communicating about project changes	Project changes will occur, perhaps as an extension of the previously mentioned resolution of issues. For example, if a major vendor to the project gets replaced, this information must then be communicated as a project change. The project manager will need some system for this type of communication.
Lessons learned process and documentation	Mention should be made about how lessons learned are communicated and stored during the project and archived at the close of the project. Like the process for communicating about project changes, there should be mention in the plan about how the plan itself gets changed.
Glossary of project terminology	People can communicate best when they are on the same page. The project manager will want to record any terms that he or she will want the team to be familiar with to smooth conversations. These terms might be an explanation of acronyms, technologies, aspects of processes and even management or project management terms.

Before creating a communications plan, the project management team should conduct an analysis of the communication requirements of the parties involved. This analysis should identify the type of information necessary to be communicated, as well as the format, and it will stipulate the flow of information.

Communications Pathways

Because the number of communication pathways in a project can increase dramatically with every stakeholder added, care should be taken to ensure that communication that is not needed by specific stakeholders or project participants is not included in communications plans. In the examples below, compare the difference between the controlled information flow shown in the second picture with the free information flow in the first picture. The second picture has much fewer pathways allowing for points in the flow where decisions about the project and its information can be authorized. The decreased pathways also diminish the effects of noise on the system.

11 stakeholders: 55 channels of communication
n(n-1)/2

11 stakeholders: 10 channels of communication
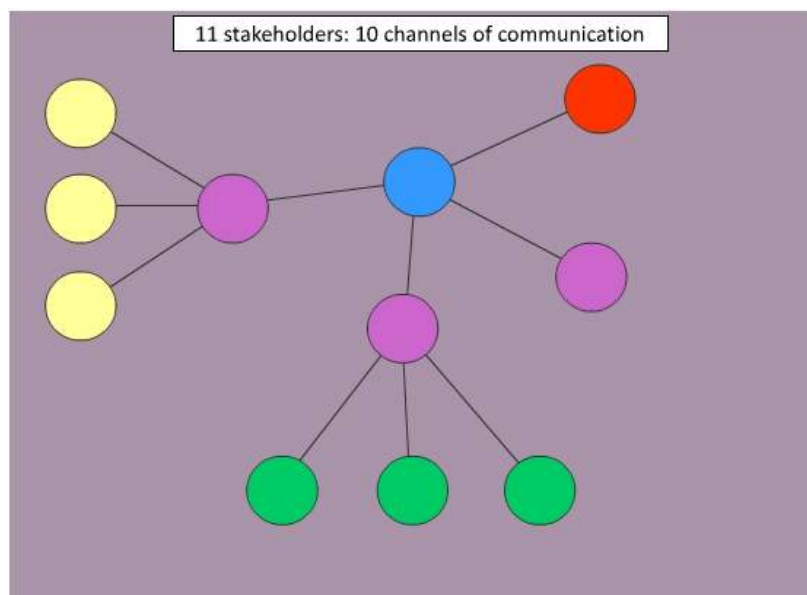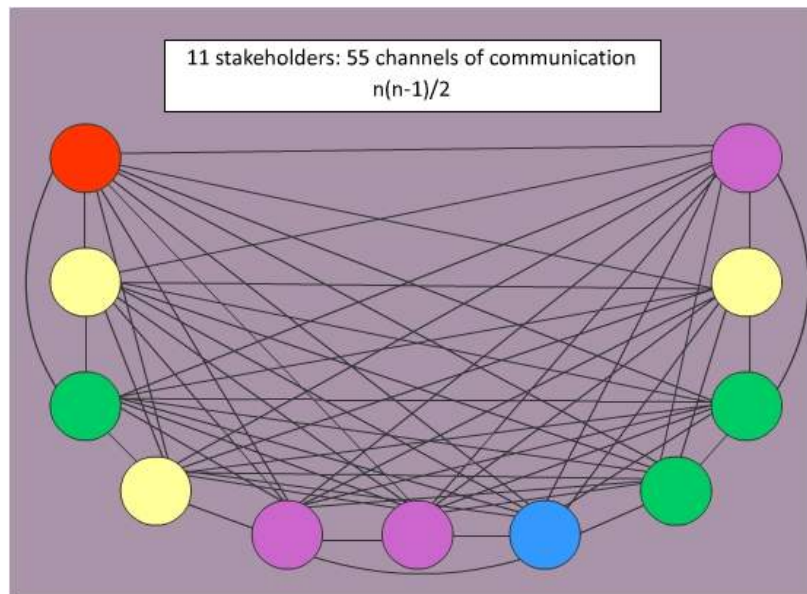
Project management teams often tend to structure informational flow so that it mimics organizational structure. For this reason, organizational charts may help the team to align the authority of communication and decision-making with the current pathways of authority in the organization. Appointing department managers as the communication contacts between different functional departments allows them to tailor information to their teams so that it focuses on the importance of that information for the particular team.

The project management team should also consider whether resources will need to be dedicated to external communication, keeping in mind that communications with other organizations or with the public are likely to require different formats and methods than internal communications.

Choices for Effective Communication

To ensure that project communication remains effective, the project manager should also consider what technology should be used and how the information should be made available. Communication methods can be categorized as *interactive communication*, *push communication*, or *pull communication*.

- Interactive communication provides the best way to confirm that information is received. This is because it requires multi-directional communication—the sender and the receiver are both present and communicating at the same time. Mutual feedback will ensure that both parties walk away from the conversation (whether it be in a co-locational meeting, on the phone, or via videoconference) knowing that their messages were received.
- Push communication provides an easy way for the project management team to ensure that information is sent to the appropriate parties. Push communication can include emails, voicemails, blogs, faxes, memos, reports, or any other type of communication that the project management team distributes without the guarantee of immediate feedback. Push communication relies on the receiver of the messages to take the initiative of reading the message, so if a message is very important, interactive communication might be a better choice.
- Pull communication allows the receivers of the message to pull down information on their own schedule. This is beneficial when there is a lot of information or many receivers because it would not be practical for the project management team to compile it all and push it to the receiver or initiate interactive communication. Pull communication can happen through computer databases, intranets, or other repositories of information. It allows information to be available to the receiver on demand, but it requires even more initiative on the part of the receiver.

Once the team decides which information should be available on an interactive, push, or pull basis, and identifies the proper communication channels for the project, it will have to decide on the third variable in the efficiency equation: the proper technology (or medium) for the message. Even though we are used to hearing the word *technology* applied to things that are new, technology can be any tool or medium that we use. A conversation, a meeting, and a letter can be technology just as a database used to pull down sales information can. The type of technology or medium used for the message will depend on how frequently the information will need to be updated to be useful to the receiver, how easy the systems that are already in place to support information distribution are to use, how much time or money will be spent on communication and training staff to use the information technology, whether staff are available to meet with each other in person, and whether security measures need to be included to safeguard sensitive or confidential information.

Communications experts suggest that people absorb information at surprisingly low rates, and that the best way to make sure your messages are received is to offer them in multiple modalities (oral and written, for example) using an overlapping (but not redundant!) approach to communicating your message. If a message is very important, a meeting or some other interactive communication technology might be the best bet, even if stakeholders also receive an outline of the information by email. Though project managers don't want to flood busy stakeholders with more information than they need or to spend excessive time or money on creating or printing paperwork, a report can be pushed to stakeholders in the form of a printed document even as it is also posted to the organization's database to be pulled down (downloaded) at a later time.

Negotiation

As a project manager, you may be called upon to negotiate many parts of your project, including the project's scope, price, terms, and schedule. Negotiation brings two parties together to create a common agreement and expectations. Negotiations can cause friction between parties, as both sides work to forge a deal that protects their interests.

Negotiating can be a difficult process; parties must ensure that they hear and respect the opposing side's arguments but not lose sight of what is important for themselves. Successful negotiations result in an agreement that both sides feel comfortable with and where neither party concedes completely to the opposing side. This approach to negotiating is called "win-win" negotiation, or integrative negotiation. It emphasizes the development of mutually beneficial agreements based on the interests of the negotiating parties. This leads us to the question: what are interests and how do they differ from positions?

Interests represent the underlying reasons why people get involved in a negotiation. The position of each party can be thought of as the "what" of the negotiation: the public or stated desired outcome.

In general, interests are usually less tangible than positions. A key element of integrative negotiation is for the parties to ask each other why they feel the way they do about the situation at hand.

Consider the chart below which compares integrative negotiation to negotiation strategies that focus on positions.

Integrative Negotiation	Positional Negotiation
The parties act as joint problem solvers.	The parties are adversarial.
The goal is to make a wise decision.	The goal is victory.
The parties work together to determine who gets what.	Each party demands concessions from the other.
The focus is on interests, not positions.	The parties may focus on their respective positions.
The parties are open about their interests and use fair principles.	The parties are closed about their interests and may mislead and use tricks.
The parties insist on objective criteria and consider multiple answers.	Each party insists on its own position.
The groups use reason and yield to principle, not pressure.	The parties apply pressure to each other.
The parties look for win-win opportunities.	The parties only want themselves to win.
Adapted from Fisher, Ury and Patton, *Getting to Yes: Negotiating Agreement Without Giving In*, and Spangler, "Integrative or Interest-Based Bargaining"	

Conducting Negotiations

As you discuss the specifics of the project, it is important to remember that your negotiations will set the tone for the working relationships on the project. A "take no prisoners" approach to negotiation may emphasize short-term gains at the cost of long-term success. Alternatively, a project manager's negotiation skills can develop mutual respect between the parties involved, improve communication, and create a lasting rapport.

When negotiating, consider some of the key issues listed below.

Negotiation Stage	Key Issues
Preparation	- Establish the scope to be negotiated. - Determine what success looks like. - Ensure that the person you are negotiating with has the proper authority to negotiate. - Try to anticipate how the other party might react. - Brainstorm "what if" scenarios and develop creative solutions. - Rehearse discussions or role-play with a coworker to prepare for negotiations.
Conducting Negotiations	- Develop rapport with the other party before entering the negotiations in earnest. - Focus on the scope of the project and potential issues. - Establish your own credibility. - Listen to the other party. - Understand the other party's needs and concerns. - Keep a tally of concessions. - Seek reciprocal concessions. - Close negotiations successfully on a positive note.

There are a host of techniques that you can use to help ensure a positive result for your negotiations. Explore and review some of the common (good and bad) tactics employed in negotiations and be prepared to deal with them if they arise. Some of these tactics are discussed in the resources below:

- Program on Negotiation (Harvard Law School)
- Neutralizing Manipulative Negotiation Tactics
- Vendor Contract Negotiation tips
- BATNA

Negotiating Trade-offs

Negotiating often involve trade-offs in the key project constraints (scope, time, cost, resources, quality). The following chart reviews some of the potential options in each of these areas.

Constraints	Potential modifications
Scope	• Reduce the scope of the project? • Reduce the complexity of the project? • Deliver the product/service/output in stages?
Time	• Reduce the duration of specific project phases? • Modify the critical path of the project? • Employ other techniques to compress the schedule? • Extend the project deadline?
Cost	• Spend budget reserves? • Add to reserves? • Negotiate lower prices with suppliers/vendors? • Get approval to exceed project budget? • Ask management to add to the project budget? • Capitalize the project expenses?
Resources	• Add staff? • Borrow staff or resources from within the organization? • Add needed skills/capabilities through training? • Outsource technical resources? • Rely more on contractors? • Rely more on end-users?
Quality	• Compress the quality assurance (QA) process? • Reduce the level of the QA process for non-critical project components? • Modify the quality standards?

Conflict Management

Conflicts that arise on projects will require some form of conflict management. Conflict is not always a bad thing; it can be constructive—particularly if the ensuing team interplay leads to a deeper understanding and resolution of the issue. But more often than not, because teams play such an important part in project management, conflict derails teamwork and any team dysfunction can be extremely disruptive.

Type or Sources of Conflict

Conflict can occur at multiple levels. Some conflicts occur between individuals or are interpersonal. Others occur within a group (intragroup) or between groups (intergroup).

Intragroup conflicts are the most common and generally take the form of a relationship conflict, a task conflict, or a process conflict.

A *relationship conflict* results from personal dislikes between team members and is difficult to resolve. This type of conflict may force the team leader to reassign team members so that conflicting individuals do not have to work together.

Task conflict arises when team members do not agree about the group's tasks. By talking through these conflicts, the team will have an opportunity to analyze the importance of each step and possibly to improve performance.

Finally, a *process conflict* results from different opinions about how the team's work should be performed. Generally, this type of conflict is resolved though team discussions and an assessment of each member's role and responsibility.

Conditions That Create Conflict

While many conflicts arise from interpersonal differences, structural differences can also cause conflict. The table below describes the types of structural conditions that can cause conflict.

Structural Conditions That Cause Conflict	
Role ambiguities	When roles and responsibilities are not clearly defined, team members risk encroaching on the work of other members. The individual team members are not necessarily at fault, because the supervisor failed to make the roles and responsibilities clearer.
Scarce resources	When resources are tight, managers may find themselves competing with other managers for the same resources. Ultimately, a supervisor will have to decide how to allocate the resources, but individual managers might still feel as though their ability to complete their work has been blocked.

Task interdependencies	When an individual's or a unit's work depends on the completion of other work, conflict can arise. For example, if an acquisition department does not supply necessary materials to a production department on time, the production department cannot successfully complete its work. These types of interdependencies risk conflict.
Competing goals	Business units with competing goals can complicate each other's work and cause conflict. For example, a marketing manager for a fast-food restaurant may want to add a variety of new products to the menu, but this goal might conflict with the operations manager's goal to produce food as quickly as possible. (A larger menu would complicate operations and most likely slow service.)
Incompatible evaluation or reward system	Incompatible reward systems can aggravate competing goals by rewarding departments whose goals are counterproductive for other departments. In the example of the fast-food restaurant above, the marketing manager might be rewarded for increasing sales, while the operations manager is rewarded for maintaining quick service. In this case, the rewards could promote conflict because the goals are not always compatible.

Sources of conflict can include scarce resources, scheduling priorities, and personal work styles. Team ground rules, group norms, and solid project management practices (such as communication planning and role definition) can reduce the amount of conflict. A project manager's first step is to encourage others to resolve their disputes. Only when they cannot should the project manager intervene; he or she will need to examine the facts thoroughly and explain decisions made regarding the dispute to the concerned individuals in private.

Steps to Manage Conflict

When conflicts in teams arise and it's beyond the ability of team members to resolve them, the project manager must step in. But before the conflicting parties meet to discuss the problem, the project manager might want to set up a few guidelines for them to follow as they work through the issue. To help the parties make the best use of this time, consider the following suggestions:

- Be sure that they separate the problem from the personalities involved. Often people are in conflict because of an underlying problem—they are just trying to overcome an obstacle to their work and have expressed their frustration inappropriately. Encourage participants to work together to uncover the root cause of the problem and collaborate on a solution.
- Be careful to limit the participants' use of labels or names for other parties. Allowing negative labels makes the conflict a personal attack, which is very difficult to overcome. Even allowing participants to describe others with positive labels can create a problem because it implies that one party has the power or authority to judge others in the conflict.
- Prohibit participants from presenting assumptions about the other party's motivation. Individuals may presume that they know the underlying reason for actions but only by letting both sides explain themselves can you ensure that real causes are uncovered.

Once the two sides are brought together, they may have difficulty determining *how* to resolve their problems. Here are some simple steps to follow:

1. First, ask the conflicting parties involved to document the issues and their assumptions around these issues. They should also offer at least one proposed solution. (If the project manager is involved in this conflict, he or she should do the same.)
2. Schedule and lead a face-to-face meeting during which the parties can state their cases, and also state what they heard as the other side's case. This ensures that there is common understanding of the facts and of the conflicting parties' viewpoints. It is very important for the project manager to seek consensus on these two points.
3. During this process, and the ensuing conversation, possibilities for solution may quickly arise. If it doesn't happen that way, the project manager is in the role of facilitating this discussion and ensuring that a solution is found. The solution might be a compromise. In other instances, the conflict might be so entrenched that the project manager has to force a solution.

A few general techniques for resolving conflict are summarized in the chart below.

Healthy Conflict Resolution
Withdraw/Avoid: anticipating and avoiding potential conflicts, or postponing resolutions to a later date
Smooth/Accommodate: finding areas of agreement or conceding one's position
Compromise/Reconcile: finding a solution that offers some benefit for all involved
Force/Direct: forcing one's viewpoint regardless of the opinions of others
Collaborate/Problem Solve: meeting the conflict with open dialogue so that the alternatives can be examined

Of the five approaches to conflict resolution, withdrawal is the least desirable. Collaboration is the most desirable, because it focuses on addressing conflicts with a problem-solving approach and emphasizes a win-win outcome. After collaboration, compromise is the next most frequently used approach to resolving conflicts on project teams, with the other approaches following at a lesser frequency.

If the sides are still unable to resolve the conflict, the project manager may be forced to bring in an outside party to act as a mediator. If that is necessary, it is important to make sure that the person chosen is a neutral party with no stake in the resolution, to ensure that the mediation is fair to all involved.

Learning from Conflict

In some cases, a project manager might bring the resolved issue to the rest of the team as a lesson learned, but only if it's possible to keep the identities of the people confidential. If certain individual(s) are becoming a discipline issue, a project manager should document this information and contact human resources. In extreme instances, if a resolution can't be found, a project manager might need to take drastic actions, such as replacing or reassigning staff.

For teams that learn to resolve problems on their own, conflict can become a useful tool. These teams use conflict to uncover issues that impede progress and to clarify issues that prevent success. The adversity that high-performing teams overcome actually strengthens the team and teaches them new skills. But any resolutions that teams develop must solve conflicts while still respecting the people involved.

Team Development and Assessment

In addition to ensuring that project resources are used in an optimal way to satisfy project requirements, project leaders should also be charged with improving individual competencies, team member interaction, and the team's working environment.

Team development starts during the early phases of a project, but must extend across the project's entire life cycle. Team development should center on the culture of the project; a project leader should seek to build trust and consistency, while balancing workloads, matching strengths against weaknesses, and encouraging the exchange of information.

Team development may also involve the training or coaching of individual team members, when needed. Training and coaching doesn't have to be a formal process; unplanned observations, teaching, and reviews can provide informal opportunities for development and improvement. Training and development opportunities can occur whenever and wherever needed so practitioners should stay alert for favorable occasions, such as meetings or planning sessions. (These meetings can also be an ideal venue for rewarding and recognizing team members for their positive contributions to the project.)

Skills Assessment

Before the development needs of project team members can be adequately addressed, practitioners must assess each individual's existing skills and then develop strategies to fill any gaps that may be found; this can be accomplished by reviewing performance assessments that contain specific, predetermined criteria set forth early in the project. Relevant criteria may include competence in the technical-, schedule-, and budgetary-based aspects of project objectives, as well as continuing education accomplishments and improvement activities.

These performance *assessments* can then be compared to team member performance *reports* to see if any training that has been implemented has actually resulted in increased performance. Different from project performance reports, team member performance reports are personnel-specific records that document information related to an individual's performance as measured against relevant assessment criteria. Team member performance reports are created at regularly scheduled intervals throughout the project and are generally discussed with individual team members in one-on-one meetings. The information discussed in these meetings can be relayed to a general employee file if one exists, which can then be used to assist in staffing and forecasting for future projects.

For those team members who meet objectives well and excel on a project, rewards and recognition may be in order, even if it's one-to-one praise. It is important to keep these gestures in proportion to the action for which they are given and ensure that they are linked to desired behaviors.

People Management Skills and Conflict Resolution

As mentioned earlier in this course, when conflicts arise on projects, a project leader's first step is to encourage others to resolve their disputes—leaders should only intervene when participants cannot resolve the issues on their own.

But when project leaders are forced to step in, they must employ good "people management" skills to help participants resolve conflicts. Project leaders must be able to assess team members' positions and foster an open discussion about the issue at hand, while still ensuring a respectful working environment. By addressing the problem professionally and respectfully, leaders can help prevent and/or reduce conflict on projects.

Harvard Business School Professor D. Quinn Mills, in his book, *Principles of Management,* has outlined the eight techniques of good people management (summarized in the table below).

Good people management: Eight techniques	
1. Fault tolerance	People need freedom to make decisions, something only possible in an environment without unreasonable penalties for mistakes.
2. Building trust	The trust of people for their managers tends to correlate with the management qualities of the manager: Generally, people show some trust for managers who are predictable, even more for those who are additionally reliable, and the most for those who add to this mix mutuality, or a sense of "one for all and all for one."
3. Establishing vision	People need an inspiring objective that was formed with their input and buy-in.
4. Setting goals	Leaders should form achievable, time-constrained goals that are aligned with larger objectives, and they should encourage this behavior in others.
5. Measurement and reward	People need to understand the benefits that are related to their work. The benefits are linked to organizational drivers, finances, and work efficiency.
6. Motivation	The project leader should create a setting in which workers can be motivated to do their best.
7. Empowering others	Good managers assist people in learning to cope with stress, give and receive criticism, and listen effectively.
8. Managing change	Change is best received in an environment that manages risk well and in which people feel safe.

Motivation is both a part and a product of managing people well. Teams are motivated by managers who lead through:

- doing what they say they're going to do
- acting honestly
- being approachable
- communicating and listening well
- encouraging communication
- holding people accountable for their actions
- knowing and communicating well the goals of the project and team members' roles

If project participants trust and believe in their leaders, they are more likely to accept any conflict resolution decisions that may be suggested.

Stakeholder Management

Working with stakeholders and managing their expectations are crucial tasks for project participants and team leaders. All of the stakeholders associated with a project must be identified, but this is often difficult, especially with large or complex projects. Furthermore, managing the expectations for such a diverse group and ensuring that they are continuously engaged in project activities can be challenging for even the most experienced project practitioners.

Identifying Stakeholders

One of the first (and most critical) tasks for a project manager is identifying all of the stakeholders associated with a project. Failure to identify key stakeholders can cause major problems for a project—if a stakeholder is overlooked and then surfaces later in the project, this person or group may challenge past decisions and/or impose additional, unanticipated work that could derail the project.

Stakeholders may represent a positive or a negative influence on a project. Positive stakeholders benefit from a successful outcome for the project and their interests are best served by helping the project to succeed. In contrast, negative stakeholders are those who anticipate or hope for negative outcomes from the project. These people or groups may try to impede the project's progress. When practitioners overlook the potential for disruption from negative stakeholders, the overall success of the project will be at risk.

Practitioners may need to review important project documents (like the project charter, power/attitude/interest grid, and salience models, among others) to help them identify all of the potential stakeholders. They can also check with colleagues, project teams from past projects, and other experts to help uncover unexpected or "hidden" stakeholders that may influence the project. Any new stakeholders or information that they uncover should be documented on the stakeholder list, which should be reviewed and updated regularly.

Managing Expectations

Although stakeholders may have different or conflicting objectives, project practitioners must manage all of their expectations to guarantee a successful project outcome. To effectively manage stakeholder expectations, project teams have to devise appropriate management strategies for engaging each stakeholder for the life of the project, with the goal of ensuring project success.

Each stakeholder must be managed differently, as no two stakeholders have equal power, influence, or investment in the project. A weekly summary email may be enough to satisfy and engage a project sponsor, but would be insufficient for a team member who spends 100% of his or her time on the project. And, even if two people perform the same function, one team member may be far more supportive of the project than another, so the management strategies to guarantee appropriate engagement in the project would need to be handled accordingly.

Different stakeholders may measure the success of a project by differing standards. One tool to help understand and manage these standards is an expectations management matrix. Such a matrix documents and prioritizes expectations, and provides suggested guidelines to help project participants make necessary tradeoffs as the project progresses. The table below shows an example of an expectations matrix:

Measure of Success	Priority	Expectations	Guidelines
Scope	2	The scope statement outlines the "must have" and "nice to have" requirements.	If the scope of the project must be reduced, the "nice to have" requirements should be eliminated first.
Time	3	There is flexibility in the delivery date.	Although there is some "give" in the schedule, project practitioners must still be alerted to problems that may impact the schedule.
Cost	1	The project must come in on budget. No additional funds can be devoted to the project.	Key stakeholders will accept the scaling back of the project scope or schedule in order to stay within budget.
Quality	4	Quality is important and processes exist for quality assurance (QA).	Employees must participate in quality training before they can be added to the team.

Source: Adapted from Kathy Schwalbe's *Information Technology Project Management.*

Engaging Stakeholders

When project management teams properly engage stakeholders throughout the life cycle, fewer surprises occur because expectations are managed, making the project more likely to be accepted by stakeholders at its completion. Because stakeholders are continuously consulted and updated on the progress of the project, resistance is minimized and support for project activities can increase significantly. Appropriate communication methods (interactive, push, or pull methods) can be employed to ensure that project progress information is available as needed by stakeholders. Interpersonal and general management skills can be utilized to manage engagement issues and to encourage key stakeholders to air their concerns about the project sooner rather than later.

Engagement Levels

Practitioners must make every effort to understand their stakeholders' current and desired levels of engagement so appropriate management strategies can be created. Is a stakeholder "on board" with a project or resistant to it? Is a stakeholder passive about the project, when he or she should be leading it?

A stakeholder engagement assessment matrix is a simple tool to identify (and manage) gaps between current and desired states of engagement. This matrix lists five levels of engagement based on the stakeholder's attitudes toward the project:

1. *Unaware* of the project and its potential impacts. Hopefully, there are very few stakeholders in this category.
2. *Resistant* to the project and the changes it will create. This can be particularly problematic if these individuals have the ability, power, or influence to derail the project entirely.
3. *Neutral* (neither resistant nor enthusiastic) toward the project and its impacts. Disinterested stakeholders can be a drain on resources if they are not engaged in ensuring project success but still consume the time and effort of project team members who must continually interact with them.
4. *Supportive* of the project and its changes. The project team should actively engage this group of stakeholders to assist in solving problems and altering the attitudes of neutral, resistant, or unaware stakeholders.
5. *Leading* the project through active engagement and influence. Through their power and influence, this group can also be enlisted to modify the attitudes and actions of unwilling or disengaged stakeholders.

The gaps between the level of engagement each stakeholder is presently at (the current level) and the level he or she should be at to enhance the project's chance of success (the desired level) are then recorded on the matrix, and strategies are devised to bring any differing levels into agreement.

The stakeholder engagement matrix can also be helpful in assessing any processes that the team uses to monitor and control their engagement of stakeholders. Appropriate strategies for stakeholder interaction should be reflected in a marked improvement in the engagement levels on the matrix. If these levels do not show improvement, procedures should be refined and enhanced to progressively upgrade stakeholder support.

Communication Skills

To successfully interact on projects, stakeholders and practitioners must develop communication skills that will help to enhance their interactions. Because project participants work collectively to plan and execute projects, these skills are especially important to ensure that interpersonal issues do not interfere with project progress.

Communication Skills

The importance of effective communication on projects cannot be overstated. Clear and consistent communication between stakeholders and project team members ensures that problems are addressed quickly and that project needs are understood by all involved. Open and honest communication enhances trust and respect among project participants and fosters a sense of inclusion in project progress.

As a project practitioner, it might be helpful to review the guidelines below with stakeholders (and with all project participants) to ensure that their communication is direct, effective, and respectful.

Guideline	Description
Specificity	When communicating with coworkers, focus on specifics rather than generalities.
Accuracy	Provide information that you know to be true and reliable.
Relevance	Stay focused and provide only the information needed by your colleagues to understand your point.
Completeness	Provide all the necessary information to support your message. Don't leave out important details.
Logic	Ensure that messages are logical and easy to follow.
Tact	Be aware of your audience's feelings. Specify why you agree or disagree with ideas, providing positive feedback where appropriate.
Awareness of your audience	Use language that suits the level of background knowledge that your audience has, and employ simple words, sentences, and explanations wherever possible. If you have to use words that you think your audience might not understand, make sure to explain them.
Preparation	Think carefully about what you want to say before you say it. Consider each of the factors in this list before you speak so that you can identify those descriptive details that make sense to include (as well as those that don't).
Feedback	Ask teammates for feedback and comments on communication.