As George Bernard Shaw once said, “The greatest problem in communication is the illusion that it has been accomplished.” Many infamous project failures, such as the Space Shuttle Challenger disaster, can be attributed directly to just that illusion. Project success depends directly on achieving stakeholder understanding by communicating effectively.

We all know that communicating is difficult enough in familiar work, social, and family settings. The project environment can be particularly challenging. Projects, being temporary, often bring people together who were previously unknown to one another—reason enough for miscommunication, especially in the first project phases. A related reason is that projects represent a microcosm of a broad, general organization—one that integrates different technical specialties and people with very different backgrounds. Common labels such as nerd, geek, and bean counter, suggest some
of the attitudinal barriers that interfere with project communications, not to mention the vocabulary ambiguities among the various disciplines. Referring to disparities between the technical and financial, Stephen Cross observed in his Foreword that technical and management issues are often aggravated and perpetuated by language barriers.

While much of this book is devoted to project language, it is but one major factor in the project communication equation. As illustrated in Figure 1.1, communications results are only as good as the least effective of the multiplication factors in this product:

Participants × Techniques × Environment × Language ~ Communication

This book consists of six parts. The main sections of Part 1 correspond to the four factors in the communications equation in Figure 1.1, emphasizing the first two: the participants and those techniques that are particularly important in the project environment. Part 2 broadens the discussion of techniques by defining the context for project communications in the form of visual process models, project integrity, and systems management. Part 3 focuses on the global professional environment and the organizations that shape it. Part 4 provides further context for the project vocabulary. Parts 5 and 6 address the language factor with a common project vocabulary consisting of terminology (Part 5) and acronyms (Part 6).

COMMUNICATIONS MODELS

Our models, summarized in Part 2, focus on projects. This section briefly describes several general models that have proven helpful
COMMUNICATIONS MODELS

in understanding the communication process itself. We also iden-
tify references that delve into the underlying theories that are
outside this book’s scope and purpose.

Many models dating from the late 1940s are referred to as
transmission models since they approach communications as an
information transfer problem based on some variation of four fund-
damental elements:

Sender (or Source) > Message > Channel (or Medium) > Receiver

One of the most popular models was created when Warren
Weaver, a distinguished mathematician, applied Claude Shannon’s
concept of information transmission loss over telephone wires to
interpersonal communication (Figure 1.2).

Shannon was a research scientist at Bell Telephone
Laboratories trying to achieve maximum telephone line capacity
with minimum distortion. Though he had never intended for
his mathematical theory of signal transmission to be used for
anything but telephones, the Weaver adaptations were very in-
fluential in information theory. Norbert Wiener, a renowned
mathematician and founder of cybernetics, added the feedback
loop to the Shannon-Weaver Model. We elaborate further on
feedback in later sections.

FIGURE 1.2 Shannon-Weaver Model with Weiner’s feedback.
The Lasswell Formula (Figure 1.3), another popular transmission model introduced a year later by sociologist Harold Lasswell, added the idea of impact or effect.

The transmission models have also influenced early studies of human communication, but many theorists now consider them to be misleading. These models and their derivatives focus more on the study of message-making as a process, rather than on what a message means and on how it creates meaning. The issues of meaning and interpretation are reflected in the models depicted in Figures 1.4 and 1.5, both of which emphasize the interpretive processes.

David Berlo, a well-known communication researcher who studied at the University of Illinois with Wilber Schramm, introduced the model in Figure 1.5 in 1960. Further emphasizing encoding and decoding, he defined five verbal communication processes.

![FIGURE 1.3 The Lasswell Formula.](image)

![FIGURE 1.4 Osgood and Schramm circular model.](image)
PARTICIPANTS AND THEIR INFLUENCE ON PROJECT COMMUNICATIONS

We often think of project participants as being limited to the team members. But from total influence and broader communications viewpoints, the participants encompass a wide array of stakeholders, including:

- Communication Skills
- Knowledge
- Social System
- Culture
- Attitudes

For those readers interested in a deeper understanding of the theories underlying these and other models, we offer these references:


The remainder of Part 1 addresses the communications issues of project teams by considering each of the four factors: participants, techniques, environment, and language.

**FIGURE 1.5 David Berlo SMCR Model.**
COMMUNICATING PROJECT MANAGEMENT

- Functional and middle management.
- Executive management.
- Closely related stakeholders, such as contractors, customers, and potential users.
- Global stakeholders, such as professional associations and standards organizations.

Stakeholders all bring their own vocabulary, behaviors, communication styles, attitudes, biases, and hidden agenda to the project environment.

PERSONAL BEHAVIORS AND COMMUNICATION STYLES

To communicate effectively, we need to be aware of differing behaviors and styles and their potential impact. Leaders often need to adapt their own style rather than “shape up” the other person.

There are numerous texts and self-study guides for analyzing your own style tendencies and preferences. We summarize two models proven to be particularly effective. However, the details of any specific self-typing or group analysis scheme are less important than the process itself—exploring your own preferences and stretching your range of styles. To benefit from that process, you first have to be self-aware.

Wilson Learning Corporation’s Interpersonal Relations Model (Eden Prairie, MN) has been widely used in the business environment for characterizing personal style. Your interpersonal style is determined by a blending of your peers’ perceptions acquired through formal questionnaires similar in format to psychology and aptitude profiles. The process begins with the interpretation of your individual results relative to the four-quadrant model in Figure 1.6.

Combining your primary style—Analytical, Driver, Amiable, or Expressive—with your secondary or backup style (one of the same four quadrants in the basic model), places you in one of the 16 style categories (e.g., an Expressive/Driver) (Figure 1.7).

The utility of the Wilson model becomes clear when you consider the interactions among the various categories. The result is a much-improved insight and

<table>
<thead>
<tr>
<th>Analytical (technical or systems specialist)</th>
<th>Driver (control specialist)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amiable (supportive specialist)</td>
<td>Expressive (social specialist)</td>
</tr>
</tbody>
</table>

FIGURE 1.6 The basic Wilson model.
awareness, not only of your own styles, but of others’ behavior patterns as well. Perhaps most important is this newly acquired means to recognize behavior patterns and then anticipate interactions so as to adapt by extending your own personal behavior boundaries.

Another model broadly supported in psychology and self-help, is based on the theory of psychological types described by Carl G. Jung (1875–1961). Jung theorized that people are different in fundamental and definable ways and that preferences for how people function and solve problems can be categorized. He believed that, while certain preferences are inborn, they can be changed over time. Jung’s model places you in one of 16 categories based on determining your dominant traits. In the 1950s, Isabel Myers and Katharine Briggs devised the Myers-Briggs Type Indicator to further characterize and apply Jung’s 16 categories. The Myers-Briggs model uses a questionnaire to help you determine your dominant trait in each of four pairs of traits:

- E/I Extrovert or Introvert
- N/S Intuitive or Sensing
- T/F Thinking or Feeling
- J/P Judging or Perceiving

David Keirsey developed his related Temperament Sorter to help with personal action plans and communications. The characterizations in Figure 1.8 are adopted from David Keirsey and Marilyn Bates, *Please Understand Me, Character & Temperament Types* (Del Mar, CA: Promethius Nemesis Book Company, 1984), one of several guides for interpreting the results.

Rather than consolidating peer- and self-review into one composite result, you are encouraged to characterize yourself and to independently have others respond to the same questions about you. Additional insight can thus be gained by comparing your results with others who have used the instrument.
COMMUNICATING PROJECT MANAGEMENT

for each trait with the perception of others. As with the Wilson model, most authors provide detailed advice and insight regarding the dynamics of one style interacting with another (e.g., an ENTJ interacting with an ISFP), whether it be as team members, manager/subordinate, or spouses.

These models help discern cognitive preferences and do not represent behavioral absolutes. They provide insight into how we gather information, process it, and communicate. Regardless of your preferred style, your actual style at any time should be affected by factors such as the maturity level of team members and the gravity or priority of the situation. Variety and shifts in style are not only necessary—they’re healthy. Communicating in projects requires flexibility and adaptability in dealing with the task at hand, the personalities involved, events, and the situation.

ATTITUDES AND BIASES CAN BUILD BRIDGES OF UNDERSTANDING OR DESTROY PROJECTS

We refer to negative personal biases regarding important project management techniques as the hidden enemies. For example, our surveys of some 20,000 managers regarding their attitude about red teams, revealed that only 20 percent of project participants have a positive attitude about this important communication technique. Please refer to the illustration under bar chart in Part 5 for more attitude survey data.

The Berlo SMCR Model (Figure 1.5) identifies attitude as one of five facets that affect personal communications (some models combine Berlo’s social system facet with culture). An inappropriate attitude or bias regarding project subject matter or a specific technique, once understood, can usually be dealt with rationally and amicably. However, attitudes toward you or toward another in the communications loop is a much more significant barrier. If you have a low opinion of the person with whom you are dialoging, you will certainly formulate your message differently from the way you formulate it for your close collaborators. This person is a computer nerd. That one is a geek. You make sure that you don’t smile too much and don’t say any more than necessary in case it is interpreted as an invitation to strike up a friendship. It is regrettable that the type of productive dialog
PARTICIPANTS AND THEIR INFLUENCE ON PROJECT COMMUNICATIONS

illustrated at the top of the mountain in Figure 1.9 is so unstable and susceptible to a sudden decline.

Constructive challenge (Figure 1.9) is a problem-resolving technique that depends on good communication skills and a positive attitude. Known as constructive confrontation in some circles, it can easily turn destructive without the right intentions, skills, or the commitment to immediately solve problems. To keep it constructive:

Go directly to the most likely solver—-independent of organization structure.
Confront the problem not the person—use facts.
Exclude personalities from discussion.
Jointly work toward resolution—hold each other accountable.

Used with good intentions, this approach eliminates whining and solves problems fast. But when used in name only, as a weapon in rivalry or for other wrong purposes, it can destroy teamwork and the project.

Excessive rivalry can be just as destructive at the individual level as it is at the global level. As long-time participants in

FIGURE 1.9 Attitude—the slippery slopes of communicating.
COMMUNICATING PROJECT MANAGEMENT

professional associations and industry standards organizations, we
have observed a trend of increasing cooperation among the key
project disciplines, which we address in the next section and in
Part 3, The Collaborative Environment. But this industry-level
collaboration frequently fails to permeate the very organizations
and projects that form their constituency. Sometimes this is a re-
sult of competitive pressures. More often, it is ignorance or misdi-
rected ambition.

In the face of management and global barriers, how can
project managers ensure effective communications on their own
project? Just like every other responsibility within a project, it
starts at home—by taking responsibility for communicating skills,
attitudes, and training at the individual and team levels. You, as
project manager, need to assess the skills within your team and
take the appropriate measures, which often starts with good
guides, such as those we identify in the next section.

The participants have the greatest potential to promote un-
derstanding by proactively strengthening the other three commu-
ication factors. When you or other key stakeholders anticipate a
communication breakdown or encounter a barrier, the best strat-
egy may be to turn to a nonstakeholder for objective feedback or
assistance. For example, the initial project planning session is often
held before the new group of people has coalesced as a team;
therefore, they may benefit greatly from an outside facilitator, one
who is skilled in the subject matter as well as the art of communi-
cating among disparate factions. Not only will this converge more
quickly on a workable plan, but it also can provide valuable on-the-
job communications skills training and experience while serving as
a model for future conduct.

TECHNIQUES FOR COMMUNICATING
IN PROJECTS

Exchange and feedback are key words in describing communica-
tion techniques. Whether engaged in a simple conversation or
conducting a multifaceted design review, the most powerful
techniques are those that result in some kind of exchange or
feedback.
TECHNIQUES FOR COMMUNICATING IN PROJECTS

Since it is beyond the scope of this book to enumerate the thousands of communication techniques that can benefit projects of all sizes and complexity, we will occasionally refer to general guides that we have found especially valuable, such as:

- Dianna Booher, *Communicate with Confidence!* (New York: McGraw-Hill, 1994). This compilation of 1,042 tips, all with explanations, is directed toward better governance with words, both written and oral.

While many of the suggestions offered in these sources may seem like common sense, they help you focus on critical points that you may take for granted, like preparing for a one-on-one conversation, testing a potentially touchy conversation, or actively listening to what other people say. In addition, they offer some helpful conversational strategies and tips for determining when your meeting is going off course.

We previously discussed the situational nature of communications, particularly in projects. In addition to being aware of your own and others’ communication styles, you need to consider your purposes, such as:

- Social (entertainment, enjoyment, or passing time).
- Relationship (build rapport, teamwork, trust, and commitment).
COMMUNICATING PROJECT MANAGEMENT

- Information exchange (present, learn, and share).
- Collaborate (work towards common goals or outputs).
- Resolve problems (address issues, remove barriers, vent hostility).
- Influence (persuade, negotiate, or direct).

You may find it useful to identify your purposes and describe your situation in order to anticipate the way in which you and the others involved may respond. Start by identifying your motivation source (personal need served).

Over the course of a project, shifts in purpose and situations occur commonly. For example, you may start a project with heavy and generous support from the functional engineering department, only to see that support wane later when a new project competes for the same resources. When collaboration suddenly turns to negotiation:

- Identify or reinforce the common vision or expected outcome.
- Identify the interests of each party in the outcome.
- Have each party prioritize their interests.
- Generate alternative solutions.
- Choose the solution that satisfies the most interests of both parties.

We devote our discussion of techniques to those that are often overlooked or underutilized to the point of project failure.

VIEWING DIALOG AS A CORE PROCESS

"Talk is by far the most accessible of pleasures. It costs nothing in money, it is all profit, and it completes our education, found and fosters our friendships, and can be enjoyed at any age and in almost any state of health." This joy of talk articulated by Robert Louis Stevenson’s witty remark is both a bane and blessing when we, as project team members, seek to employ talk in the form of conversation.

Fundamental communication techniques are brought into play whenever one project member engages another in conversation.
TECHNIQUES FOR COMMUNICATING IN PROJECTS

The potential impact of the ubiquitous one-on-one conversation is too often ignored or taken for granted. Figure 1.9 illustrates a few of the situations we have all been in—on one side or the other.

Hundreds of valuable and creative conversational techniques are explored in the sources listed earlier. Juanita Brown and David Isaacs cite research demonstrating that informal conversations can often be much more powerful and satisfying than formal communication processes. They offer this thesis: “Consider that these informal networks of learning conversations are as much a core business process as marketing, distribution, or product development. In fact, thoughtful conversations around questions that matter might be the core process in any company—the source of organizational intelligence that enables the other business processes to create positive results.” We hasten to add that, while informal conversation techniques can certainly be used more effectively when properly supported, their utility and power is greatly diminished when they are practiced as a substitute or work-around for inadequate project visibility and statusing processes.

By definition, deep dialog goes beyond an informal conversation. It extends to the exchange of constructive feelings and attitudes in order to reach a common understanding. The practice of this communication technique is a good sign that an effective project team is in place. It also helps improve teamwork as challenges occur. Openness and sharing can elevate dialog to collaboration and create an environment for resolving conflict, but it does require a time investment. One useful technique is to schedule a meeting with no fixed agenda.

To promote dialog as a core process, consider these ground rules:

- Test assumptions and inferences.
- Share all relevant information.
- Focus on interests, not positions.
- Be specific, use examples.
- Agree on what important words mean.
- Explain the reason behind one’s statements, questions, and actions.
COMMUNICATING PROJECT MANAGEMENT

- Disagree openly.
- Make statements, then invite questions and comments.
- Do not make disparaging or destructive remarks or otherwise distract the group.
- All members are expected to participate in all phases of the process.
- Exchange relevant information with nongroup members.
- Make decisions by consensus.
- Do self critiques.

BEING PROACTIVE BY WALKING AROUND

Management by walking around works on the assumption that a manager must circulate to fully understand the team’s performance and problems. The best managers, according to Tom Peters, spend 10 percent of their time in their offices and 90 percent of their time talking and working with their people, their customers, and their suppliers.

Think about it: The most important job for the project manager or technical leader is to be in touch with the team members. Yet, project communications often suffer because team leaders spend too much time managing by PowerPoint. By occasionally circulating among team members in their work setting, you can resolve—or at least learn about—issues that may never make it to a formal review, address morale or even technical problems before they become issues, or simply enter into a brief conversation that helps maintain an open culture.

ACHIEVING UNDERSTANDING THROUGH BREVITY—WHEN LESS IS MORE

Very often, the real impact of communication doesn’t occur until the information is recalled. As a rule of thumb, retention halves for each of five steps, which leaves us with eight minutes in the bank for a two-hour investment:

We hear half of what is said. 2 hours
We listen to half of what we hear. 1 hour
We understand half of what we listen to. 30 minutes
TECHNIQUES FOR COMMUNICATING IN PROJECTS

We believe half of what we understand. 15 minutes
We remember half of what we believe. 8 minutes

Beyond two hours in one session, another factor takes over—fatigue. As Anatole France put it, “The more you say, the less people remember.”

Hiding problems by saying nothing is not a positive application of this technique.

OBSERVING AND LISTENING—ENCOURAGING COMMUNICATIONS BY REMAINING SILENT

Perhaps the most difficult communication technique of all is effective listening. We all know this from our own experiences and from the proliferation of great thinkers who have lamented the lost art of listening. We would all do well to heed Sydney Harris’ admonition: “It’s a tossup as to which are finally the most exasperating—the dull people who never talk, or the bright people who never listen.” Those bright people are often in one of these roles:

- Dreamer—thinking of other things
- Actor—focusing on delivery rather than content
- Rehearser—formulating responses or rebuttals
- Placater—agreeing, just to be nice
- Derailer—switching
- Debater—discrediting or discounting the message
- Filterer—hearing selectively or with bias
- Know-it-all—succumbing to the “urge to talk”

One listening technique we favor begins by turning off your natural tendency to react to what you’re hearing. Turn up the gain on your receiver—just remember to turn off your own sound to feel the power of remaining silent. Oscar Wilde quipped, “He knew the precise psychological moment to say nothing.” Sometimes your silence can speak volumes.

This is especially difficult if you are an expert in your field or a high-level manager who believes you know it all. But that’s one of the most critical listening situations for breaking barriers, experiencing fresh ideas, building rapport, and exerting positive
leadership at the project level. Former Secretary of State, Dean Rusk, put it this way, “The best way to persuade others is with our ears.”

POURING TECHNIQUES—OVERCOMING THE DANGER OF REMAINING SILENT

Friedrich Nietzsche observed, “There are no facts, only interpretations.” But what do you do when people withhold their interpretations for the wrong reasons?

In her Tip 40, Dianna Booher asserts that you need to hear silence as it is intended (and we add, not as you want to interpret it). She points out that people who believe that silence is consent are in for a big disappointment. She identifies 16 meanings for silence, including reflection, confusion, anger, revulsion, rebuke, shock, and powerlessness. We add one that often dooms projects: Fear.

Polling is a communication technique that has been traditional in aerospace programs for years. It consists of addressing individually each representative in a launch operation and recording their position as to proceeding with the launch. Every individual has the right and obligation to stop a launch if his or her area is not launch worthy.

The power of using this technique, and the danger of inappropriately omitting it, is illustrated by ABC Television’s faithful reenactment of the Challenger launch decision by telephone conference between the NASA launch team and the solid rocket manufacturer, Thiokol. It shows a team of responsible Thiokol engineers being overpowered by their management who are determined to please NASA officials with a favorable launch decision even though the engineers believe that the low launch temperature was far too risky for the rocket booster O-rings. NASA attempted to ensure that Thiokol’s decision was based on team consensus by asking over the conference call telephone, “Is there anyone in the room with a different opinion?” The engineers fearfully remain silent, their facial expressions and body language telling the true story of their discomfort with the reckless decision. NASA is unable to see the telling body language and the critical communication did not occur.

TECHNIQUES FOR COMMUNICATING IN PROJECTS

Rogers, Chairman, 6 June 1986), “The Commission concluded that there was a serious flaw in the decision-making process leading up to the launch of flight 51-L. A well-structured and managed system emphasizing safety would have flagged the rising doubts about the Solid Rocket Booster joint seal. Had these matters been clearly stated and emphasized in the flight readiness process in terms reflecting the views of most of the Thiokol engineers and at least some of the [NASA] Marshall engineers, it seems likely that the launch of 51-L might not have occurred when it did.” On that basis we can conclude that, had NASA recorded a poll requiring those present to state their name and launch decision, the launch probably would have been postponed, possibly saving seven lives. The massive analyses of the Challenger disaster dwell on the O-ring failure with only brief mention of the communication failure, the root cause, and lesson learned.

MEETINGS MADE MEANINGFUL—DON’T NEGLECT TO FOLLOW UP

In Visualizing Project Management, we refer to meetings as the project manager’s dilemma. High-value meetings are critical to project success while ineffective meetings can be worse than wasteful—they can destroy morale. “Whether one-on-one or involving the entire project, meetings are a significant technique for gathering and disseminating information. As such, they can easily consume 40 percent to 60 percent of a project manager’s time.” The book identifies a dozen types of useful project meetings and offers guidelines for their planning and execution.

Since entire books are devoted to effective meeting management, we look at one important aspect that is often underused: meeting follow-up techniques. Too many times an expensive meeting is concluded by published minutes that go into a file drawer or e-mail folder.

Take notes. Effective follow-up communication begins at the opening of the meeting by asking the attendees to make their own notes about specific issues or questions important to them. These need to be collected at the conclusion (these notes may be anonymous) for follow-up and may be just as important as the acknowledged action items. These items can range from an assessment of the meeting itself to issues that were triggered there, but
unrelated to the meeting subjects. They can often spawn communications that have their own life and purpose.

Don’t wait too long to follow up. In fact, a shortcut may often be appropriate. If you’re not clear about an action item or message, play it back right in the meeting for the benefit of everyone involved.

If you’re too busy to plan your meeting or the follow-up, reschedule it!

CONSTRUCTIVE FEEDBACK—ENSURING THAT THE EXCHANGE IS UNDERSTOOD BY ALL

You haven’t fully communicated until your intended meaning is confirmed through your audience’s response or by some other form of feedback. The importance of this communication technique is not only critical when eliciting requirements, but at every step in the project cycle. Feedback provides the basis for project decisions:

Fast feedback enables fast decisions.
Fast honest feedback enables fast sound decisions.

Projects are driven by the project cycle with its reviews and control gates. Since these events bring together the key stakeholders, they offer one of the most powerful and efficient opportunities for project communications. However, unless that all-important feedback loop is reinforcing and constructive, the experience will be worse than no communication at all (see Figure 1.10).

Some situations can benefit greatly from a two-way feedback agreement:

“In order for us to be effective, I give you permission to be totally honest with me. (So long as you don’t attack me as a person and focus solely on work content.)”

“I will do my best to comprehend your message and to remain calm and centered as we resolve the issues together.”
TECHNIQUES FOR COMMUNICATING IN PROJECTS

“In turn, I will be honest and forthright with you.”

Feedback works best as part of an organizational culture that encourages feedback to be given and received without reservation. All discussions should keep these positive objectives in mind, while avoiding their negative counterparts:

<table>
<thead>
<tr>
<th>Effective</th>
<th>Ineffective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frank and objective</td>
<td>Emotional and personal</td>
</tr>
<tr>
<td>Specific and complete</td>
<td>General and vague</td>
</tr>
<tr>
<td>Capable of being acted upon</td>
<td>Not actionable</td>
</tr>
<tr>
<td>Factual</td>
<td>Opinions</td>
</tr>
<tr>
<td>Timely</td>
<td>Ill-timed</td>
</tr>
</tbody>
</table>

According to Jack Welch of General Electric, “The secret of running a successful business is to make sure that all key decision makers have access to the same set of facts.” But access is not enough. There must be confirmation that key decision makers are cognizant of the relevant facts and are bringing them to bear on decisions important to the project. This is best accomplished at control gates where proof of concept performance and proof of design producibility provide the basis for moving ahead. In the conduct of control gates, constructive challenge and constructive feedback are key to achieving confidence. Receivers must be open to this input and concentrate on hearing the suggestions and solution as best intentions. No matter how caustic the delivery may be, don’t react as if you are attacked personally or you may end up shooting the messenger.

Control gates are not the only forum for constructive feedback. Others are personnel performance reviews, project status reviews, fee evaluation reviews, proposal evaluations, proposal debriefings, peer reviews, red team reviews, and tiger team reviews. There is no limit to the informal opportunities and methods for

FIGURE 1.10 Feedback categories.
COMMUNICATING PROJECT MANAGEMENT

providing essential, on-going feedback, including discussions around the water cooler.

We have found peer reviews to be very effective when the review methods of all parties are aligned. There are three distinctive types of peer reviews for content and quality:

Type 1—Please Comment

- Author requests comments.
- Commenter provides comments without expectation of feedback.
- Author decides what will be incorporated and what will be ignored.

Type 2—Collaborate to Consensus (C2C)

- Author requests C2C.
- Commenter(s) provides comments and expects discussion until consensus is reached on the result.
- Both can then vigorously defend the result.

Type 3—Red Team Reviews

- Used when comparing to a standard such as an RFP or an industry standard.
- Reviewer(s) produce scoring against pre-established criteria.
- Reviewer(s) produce strengths and weaknesses assessments.
- Reviewer(s) produce recommendations for improvements.
- Author(s) discuss details with the reviewer(s) to ensure understanding of the scoring, strengths and weaknesses, and recommendations (but not to argue correctness of the reviewer(s) observations and recommendations).
- Author(s) unilaterally respond to the reviewer(s) suggestions as the author(s) deem appropriate.

THE ENVIRONMENT

This section considers the local project environment, which has about as much variation as does the world’s governmental
THE ENVIRONMENT

landscapes—from free and open to dictatorial and suppressive. In Part 3, we address the global professional environment.

A BALANCED ENVIRONMENT ENCOURAGES FEEDBACK

An organization’s culture and process should not become one where feedback providers must spend excessive time massaging the message so as not to irritate the receiver. Again, focus on facts and issues, not personalities. Speed and clarity must prevail in the interest of achieving swift but informed decisions.

Feedback receivers must develop an immunity to being offended in the interest of swift, clear communication. A thick skin helps. The receiver needs to give the provider some slack.

STOVEPIPES AND SILOS

As William Duncan notes in the Foreword, “One of the major obstacles to the development of a common language is our relative insularity. In the same way that physical isolation breeds language dialects, our intellectual isolation has bred project management (and systems management) dialects.”

One form of organizational isolation is known as stovepipes or silos (see Figure 1.11). This jargon refers to virtual barriers proudly built by functional teams of a single discipline or power group. If not carefully managed, we might end up with “we creators” and “those bean counters” or as another example, “our night shift” and “that dazed shift” or any other equally derogatory division. These virtual barriers, so proudly built, not only partition and inhibit communication, but also foster negative communication that alienates and punishes. One of the authors would visit customers without informing his marketing personnel because he felt they were not technically qualified. This practice is seriously wrong and can be disastrous for any project depending on free and open communication to ensure the best decisions.

THE PROJECT (OR COMPANY) GRAPEVINE: A BLESSING IN DISGUISE?

The simple human pleasure of talking can overcome any organizational barrier. But, as C. Northcote Parkinson sees it, that talk
may not always be helpful to the project, “The vacuum created by a failure to communicate will quickly fill with rumor, misrepresentations, drivel, and poison.”

Juanita Brown and David Isaacs take the opposite view. “Consider for a moment, that the most widespread and pervasive training in your organization may not be happening in the training rooms, or boardrooms, but in the cafeteria, the hallways, and the café across the street. Imagine that through e-mail exchanges, phone visits, and bull sessions with colleagues, people at all levels of the organization are sharing critical business knowledge, exploring underlying assumptions, and creating innovative solutions for key business issues.” They assert that the organization’s communication grapevine is “not a poisonous plant to be cut off at the roots, but a natural source of vitality to be cultivated and nourished.”

Plato resolves the dichotomy very simply: “Moderation in all things.” The secret is coming to a balanced environment where the informal channels of communications are supported for the good things they do, but not at the expense of the appropriate visibility and statusing facilities, which the grapevine should complement, not replace.

LANGUAGE—THE MANY MEANS WE USE TO EXPRESS OUR THOUGHTS

We strongly agree with Samuel Johnson when he said, “Language is the dress of thought.” Like clothing, language can also conceal thoughts, or worse yet, replace thinking altogether.

The answer to, “What was he thinking about when he selected that awful tie to wear to this meeting?” is probably, “Nothing.” Your attire communicates—sometimes very loudly.

By language, we mean everything from a common vocabulary to appropriate attire and body language, and we include the effective use of silence, as well (Figure 1.12). Our simple advice regarding body language: Believe the body language you’re seeing if it conflicts with the words you’re hearing. Likewise, intonation speaks louder than words.
LANGUAGE—THE MANY MEANS WE USE TO EXPRESS OUR THOUGHTS

Safeway, a major grocery chain, succeeded in making a remarkable marketplace shift from the low price leader to a high value and service image on the strength of a comprehensive, corporatewide language training program (called “Front-Line Leadership”). A store manager recently approached one of the authors waiting in his car that blocked a fire lane in front of the store. To encourage moving the car, the manager said, “May I help you with something, sir?” But the intonation said something very different: You need to move your car!

In addition, Safeway has set a new industry standard for communicating appreciation to its customers. Every credit card customer hears “Thank you for shopping at Safeway, Mr. Jones. Do you need help to your car?” This personalized “thank you” rarely goes unnoticed.

Here are a few word choices that can facilitate communications and project success:

**Communication Killers**

- We’ve tried that before.
- You have to be practical.
- Let’s form a committee.

**Communication Enhancers**

- That’s an idea we can build on.
- Why not? Let’s put a timeline on it.
- Do it!

People consider and anguish over word choices. They may even think about their tone of voice. Seldom, however, do they think about or plan what the rest of their body is saying through crossed arms, stance, or facial expressions.

The study of nonverbal communication in psychology has its origins in the nineteenth-century writings of Charles Darwin on *The Expression of Emotions in Man and Animals* (1872) and in Wilhelm Wundt’s nineteenth century work on gesture. It would take another 50 years for body language to become a central topic in social psychology.

Based on research done by Albert Mehrabain and published in his article “Communication Without Words” in *Psychology Today*, 93 percent of all communication is expressed nonverbally. Nonverbal communication includes eye contact, facial expressions, gestures, inflection, tone, and rate of speech. Body language makes up 55 percent of the communicated message, tone of voice accounts for 38 percent and words the remaining 7 percent.
COMMUNICATING PROJECT MANAGEMENT

The word *babel* was derived from an infamous project failure in the ancient town by that name. The Tower of Babel project was destroyed by lack of a common language. Here are a few language suggestions to help prevent such total destruction.

**LANGUAGE ABUSES—ACRONYMS AND JARGON**

Acronym abuses are legendary. Andy Rooney, a television commentator, once did a full-hour special video on the folly of acronyms and titles within the U.S. government. We are all guilty of AA—acronym abuse, and its close relative, JA—jargon abuse.

At one extreme, jargon is a lethal weapon. At the other, it provides the foundation for a uniquely meaningful project vocabulary. Unfortunately, specialists on the project team (whether rocket scientists or accountants) may consciously use jargon to confuse, confound, or obscure embarrassing or deficient information. Others, perhaps reluctant to reveal their ignorance, choose to ignore what could lead to project failure. The solution is easy to recognize, but often very hard to implement. Ferret out all jargon and either eliminate it from project communications or embrace it by defining it in the baseline project vocabulary document.

**COMMUNICATION DISTORTION—THE NOISE FACTOR**

This problem is vividly illustrated by performing the “pass the message around the table” exercise, a favorite at dinner parties and communication seminars. The problem starts with wording the message itself—using $5 words when 50 cent words will do. The fog factor (defined in Part 5) can destroy the message before it is even heard: What he said isn’t what he meant to say or even what he thought he said. To distort matters more, what you thought he said is not what you said he said!

**READING BETWEEN THE LINES—META MESSAGES**

Meta messages (a term coined by Gerard Nierenberg, the author of *The Art of Negotiating*) refers to the messages between the lines—the ones that come from the context. Make sure that your own meta messages are the intended ones. For instance, when explaining how to fill out a task authorization form to an
LANGUAGE—THE MANY MEANS WE USE TO EXPRESS OUR THOUGHTS

audience that includes small projects, use small values as examples to be consistent with their financial environment and avoid distractions.

A rather extreme meta message was conveyed by the NASA official who said he was “appalled” by Thiokol’s recommendation not to launch the ill-fated Challenger mission. Unfortunately, the meta message suggesting that the recommendation be reversed got through and the launch recommendation was indeed reversed after 30 minutes of deliberation (subsequent events are described in the earlier Techniques section on polling).

Listen and respond to the meta-message, not to the words, but make sure that your meta-message is what you intend it to be.

THE PROJECT VOCABULARY DOESN’T EXIST UNTIL IT IS DOCUMENTED

Since we sometimes use the same word to mean very different things, each term that has multiple meanings needs to have multiple definitions, each documented in its own context. It is incumbent on both senders and receivers to clarify or to demand clarification when the context is missing or unclear. The best policy is to eliminate the ambiguity altogether and find (or invent) a substitute term. We address several ambiguities in our own vocabulary in the last section.

THE PROJECT VOCABULARY NEEDS TO HAVE CONTEXT

As Heinz Stoewer asserted, “Failures not only result from bad hardware engineering, software engineering, system engineering, or project-management, they can also result from differing interpretations of engineering, communications, or management terms and associated cultures.” Many terms can only be fully understood in their relationship with others and in the context of a specific project, process model, or project cycle. We included Part 2 for that very purpose. The cross-referencing we employ in Part 5 is another means to relate one term to another.

One way to provide the context is by incorporating examples or templates for use in the project. Part 5 provides examples or illustrations for the following terms that are some of the more widely
COMMUNICATING PROJECT MANAGEMENT

used and important project management concepts and communication vehicles:

affinity diagram          product breakdown structure
cards-on-the-wall planning project evaluation review technique
control chart             project charter
critical path             project office triad
decision tree             requirements verification matrix
earned value              schedule
Gantt chart               stakeholder verification
matrix management         work breakdown structure
network diagram           performance measurement system
organization options      system

PRECISION IN COMMUNICATION—DEALING WITH AMBIGUITY

Some imprecise, confusing, or ambiguous terms have, through usage, become de facto industry standards. The very fact that they are commonly used can frequently interfere with communication on projects, leading to mistakes and costly delays. We draw your attention to them here and refer you to the definitions in Part 5.

In a project environment, the words model and prototype are not well understood, and common usage by technical people has distorted both terms to the point that they must be defined (or have an adjective modifier) with each use (but only if you want to be understood). Similarly, to be precise when you use baseline or verification, you should consider using the appropriate modifier to avoid miscommunication.

Quality, qualification, test, verification, and several combinations of these terms are frequently abused and misused. Consequently, our definitions for these terms are very detailed, some with examples or anecdotes to highlight subtleties.
The definition of verification as “proof of compliance with specifications” is generally understood. The reality that verification may be determined by test, inspection, demonstration, or analysis, is less well understood, as are the differences in these four methods since they sound similar. For instance, how does demonstration differ from test? Verification by test requires examination of performance data, whereas verification by demonstration means witnessing the operation and does not require data. When the team understands these subtle but important differences, precise communication is much more likely.

When referring to project cycle events, the terms review and control gate are often used interchangeably. This is unfortunate because they have very different meanings, purposes, and expected outcomes.

A review assesses status and, if the status is unsatisfactory, the review results in action items designed to achieve expected performance.

A control gate assesses work accomplished to determine if the results should be included in a new elaboration of the baseline and placed under formal change control.

Notice the very different expectations of these events and note also, that in much of the U.S. government environment, both status reviews and control gates are called reviews.

This confusion is further compounded by the very names of the control gates. For instance, the Preliminary Design Review known around the world as the PDR is not preliminary, does not review design, and to be precise, is not even a review! While this control gate does review evidence, the higher purpose is to approve concepts and their associated specifications. It is the obligation of the control gate event to prove that the specified performance is achievable within the state of the art and within the available schedule and resources. Laboratory testing and analysis are presented as evidence to support the claims. Hence, this “review” should be correctly titled, “Performance Guarantee Gate” where the concept and its performance is guaranteed by the offeror and is baselined.
Similarly, the Critical Design Review control gate known around the world as the CDR, is not a review, is no more critical than other control gates, and is certainly not more critical than the System Concept Review control gate. The CDR does review design but does so to ensure that the producers can do what is being asked for and that the results will be as expected. Production proof models and software feasibility prototypes are offered as evidence. Hence this “review” would be more appropriately titled the “Production Guarantee Gate.”

Unfortunately, we are saddled with nomenclature issues such as these. Part 5 seeks further to clarify these and other ambiguities.

Periodic project reviews are often scheduled on a biweekly basis, but how often is the project review to occur? Twice a week or every other week? Unfortunately, consulting an English dictionary doesn’t help. The consistent definition from the Merriam-Webster’s Dictionary (2001), the Oxford American Dictionary (1999), and the American Heritage Dictionary (2000) is: “Biweekly, adj., adv., 1. every two weeks. 2. twice a week.” While all state that the first definition is preferred, confusion still occurs within project teams. Project management usage should be biweekly for every two weeks and semiweekly for twice a week, and likewise for monthly and yearly.

We’ll close on a lighter note about a heavy substance, cement (which is not defined in Part 5). We frequently see newspaper articles about a new cement building or a newly completed cement highway. But driving down a cement highway would be a very dusty affair, since cement is a powdery ingredient in concrete (There are no cement highways, only concrete ones). We would never ask for a slice of flour to accompany our breakfast, so why has “cement” replaced “concrete” in our common vocabulary? Of course, it doesn’t make any difference... unless you are in the building industry where it makes all the difference in the world.