
Chapter 9

B. Communication Skills and Abilities

In today's world, the quantity and diversity of available data, information, and knowledge is overwhelming for many people. Access to data from virtually any part of the world, even outer space, is nearly instantaneous. The quality of such data and information, as well as their usefulness, is often suspect, however. Not only is the capability to communicate quickly, succinctly, and accurately more important than ever but so is the ability to know what information to choose for a given purpose.

This chapter will review what communication is and how communication takes place and will present techniques and strategies for enhancing communication. In addition, the chapter will discuss how to effectively communicate in the global economy, as well as provide tips on how to use data produced by information systems technology to monitor and manage an organization.

1. COMMUNICATION TECHNIQUES

Define and apply various modes of communication used within organizations, such as verbal, nonverbal, written, and visual. Identify factors that can inhibit clear communication and describe ways of overcoming them. (Apply)

Body of Knowledge III.B.1

What Is Communication?

People working toward a common purpose cannot function without communication. Communication is a transmitting and receiving process that for effectiveness depends on both the transmitter's and the receiver's perceptions. This statement appears applicable to both human as well as technological communication. Important to each is the realization that there are filters affecting both what is transmitted and what is received. In the human communication process, these filters may represent cultural beliefs, the consequences of previous communications, conditions at the time of transmission, language disparities, education, experience, and

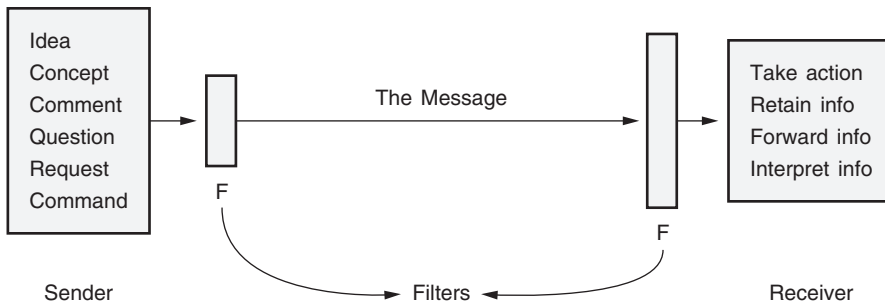


Figure 9.1 Communication path.

so on. In technological communication, filters are intended to reduce or eliminate noise (interference) along the communications path. Figure 9.1 depicts the communication path from sender to receiver.

Filters intended to help clarify the meaning of the message can, and too often do, muddle the message instead. (Note: some authors refer to *coder* and *decoder* rather than filters.) An aid to effective human communication is for the receiver to transmit back to the sender a paraphrased understanding of what the receiver heard or saw. Depending on the complexity of the message and its intent, this exchange may require repeating, in different words, until the intended understanding is reached. In technical transmission this clarification may be accomplished by various types of built-in checks for the technical accuracy of the transmission and then, for clarity of understanding, a return message confirming (repeating) the pertinent data. Keep in mind that unless there is direct machine-to-machine interface (no human intervention between the sending of data and the reaction to the data), even technological transmission may be subject to human filtering on both ends.

As far back as Socrates, it was pointed out that one must communicate with another on the other person's terms. This applies not only to language differences but also to cultural, educational, and experiential differences. Before communicating, the first consideration is, given the receiver's background, is this communication within the receiver's range of perception and understanding? In the technological realm, this potential for incompatibility is annoyingly prevalent in transmitting data from computer to computer. In this case the unknowing transmitter discovers that the recipient's computer and programs do not have the compatibility for receiving the data as sent—for example, the data appear garbled when received.

Hayakawa stresses that in communicating, the words or symbols are not the actual thing being discussed.¹ This concept emphasizes that for clarity of understanding on the part of the receiver, the sender must work at conveying what was meant by the message and strive to ensure that the receiver *got the message intended*.

Expectation is a critical factor in communication. Humans tend to see and hear mostly what they expect to see and hear. The unexpected message may not be received (ignored, blocked out). This suggests that some knowledge of the receiver's expectations should be known for communication to be effective. (Note: *recognize*, or *re-cognize*, means we see what we expect to see or have seen, ignoring what does not fit our mental model.)

Communication has occurred when action is taken. Action can range from immediately perceiving the message as an order and obeying it to deciding that

the message contains information that may or will potentially be useful (or entertaining) at some later date and then storing the message for subsequent retrieval.

A significant problem in human communications is the difference between what the sender says and what the receiver often hears. Because the sender is translating thoughts into words and the receiver is then translating words into thoughts, many opportunities occur for differences in meaning. Misinterpretation can be caused by background, cultural biases, group norms, and emotional and health factors.

Direction of Communication

Organizational structure plays an important role in communication. Top-to-bottom vertical communication flows from managers to subordinates. The organization's vision and values, strategic goals, objectives and measures, and policies and procedures are typically communicated in this manner. Vertical communication also occurs when a manager assigns tasks to direct reports. Vertical communication also flows upward in the organization, in the context of feedback, problems encountered, and so on. In both downward and upward directions, the content of the communication is subject to filtering as the message passes from one person to another in the hierarchy.

For example, think of the telephone game. It goes like this: A group of people, say sixteen, are each separated by perhaps six feet. The first person softly reads a short story (up to a third of an 8 1/2×11-inch sheet of paper) to Person Number Two. Person Number Two repeats the story, from memory, to Person Number Three, and so on, until Person Number Sixteen has heard the story. Person Number Sixteen then repeats the story to the entire group. After a great laugh, the group discusses the changes that took place as the story passed from person to person. Often, the last person tells a version of the story that bears little or even no resemblance to the original.

Bottom-to-top vertical communication occurs when information flows from subordinates to management. Status updates on assigned tasks, employee suggestion systems, and various types of reports are examples of this form of communication. Upward communication may also include notification of deficiencies in materials, supplies, and work orders, as well as employee complaints.

Sometimes, management finds it more efficient to communicate some types of messages to all employees at monthly group meetings or via electronic communications such as e-mails. These communications are often announcements of presumed general interest to all (for example, new product/service, new large customer, facility upgrade) and may be used in situations in which the speaker desires an audience reaction.

In addition to vertical communication, information is also transferred horizontally. Information flow among peers or within a team or group is horizontal communication. Examples of situations in which horizontal communication occurs are (1) a cross-functional design team developing a new product, (2) a quality improvement team working on cycle time reduction, and (3) a field salesperson notifying the production scheduler of a pending large order.

In Chapter 7 the deployment of organizational goals and objectives was discussed. A critical feature of hoshin planning, used in strategic planning, is the *catchball* concept. This is using both vertical and horizontal means of communicating (down, up, and sideways). The aim is to ensure that everyone in the organization

understands the organizational goals and objectives and identifies the part they are to play in achieving those goals and objectives. The communications, if carried out well, result in a tightly knit plan with clear linkages (and understanding) throughout every organizational level. Another type of vertical and horizontal communication is the 360° feedback process.

Methods of Communication

Communications can be written or oral (both are verbal communication) or nonverbal. Examples of written communications include policy and procedure manuals, performance reports, proposals, memoranda, meeting minutes, newsletters, e-mail, text messages, and online documents (for example, via company intranets). Examples of oral communications include giving orders, giving performance feedback, speeches, meetings (group or one-on-one), informal discussions, and voice mail. Computer transcription of recorded voice mails adds more complexity and chance for error to this process.

Body language—the expression of thoughts, emotions, and so on through movement or positioning of the body—is yet another form of communication. Detailed studies have been done to analyze the meaning of various facial expressions, positions of arms and legs, posture, and so on, for both females and males and within different cultures. Body language, especially if it is perceived to be negative (particularly if viewed as insulting, disrespectful, or threatening) from the receiver's perspective, can negate a positive oral message.

Picture one spouse giving an emotionally laden oral message to the other spouse, who is intently watching a televised sporting event. The “Yes, dear” replies do not reflect whether any of the spouse's messages were received. Also, body language may suggest that the messages, if received, failed to be interpreted as intended.

The negative nonverbal message that body language may communicate is a serious training topic for persons embarking on an assignment to a part of the world where the culture is different. Morrison et al. discuss some of the perils associated with inappropriate body language.²

Communication is also either formal or informal. *Formal* communication is planned and delivered as part of standard operating policies and procedures (SOPs) of the organization. A letter offering employment, a product test report, an environmental impact statement, the company's annual report, and performance appraisals are examples of formal communication. Signs, posters, and official posted notices are also formal communications.

Informal communication is not mandated or otherwise required but occurs as part of helping people function collaboratively. Examples include a discussion between a test engineer and a production supervisor to clarify a specification, or an e-mail message from one employee to another reminding him or her of the need for the two of them to prepare for an upcoming presentation. Classroom and online blended training are typically a mix of formal (for example, lecture) and informal (for example, discussion) communication.

The “grapevine” is informal communication. It is often of unknown origin and transmitted orally and/or by other fast, unauthorized media (unsigned posted notes on a bulletin board or e-mail, text messages, online postings, and so on). It may include rumor, opinions, gossip, false or true data, or valid information that has not yet been officially made known. Efforts to squelch or abolish

the grapevine usually fail and often drive the communication further underground. Interestingly, management has been known to plant information for the grapevine to pick up for the purpose of testing the water to get employees' reactions or to communicate something that might be too embarrassing to document or say officially and publicly. To keep the grapevine from spreading misinformation, the frequency, accuracy, and honesty of management's communications to employees is crucial.

Other forms of informal communication include the pictures, cartoons, and quotations individuals post at their workplace and traditional greetings and rituals—for example, "Good morning, how are you today?"

Selecting Appropriate Media

Factors to consider in making the choice of media include:

- *Urgency of message.* If the building is burning, a loudspeaker evacuation notice from a top official would be appropriate, whereas the death notification and funeral arrangements for an employee over a loudspeaker could be perceived as poor taste.
- *Number and makeup (for example, culture, education, experience) of the receivers.* The bulletin board notification of critical safety rules may be inappropriate as the sole communication to workers with poor reading ability.
- *How dispersed are the receivers.* Will priority mail suffice for sending design changes to suppliers in different parts of the world? Or would another medium be more cost- and time-effective?
- *Culture and work climate into which the message will be received.* Would it be prudent for management to deliver its latest dictum on the "We must improve our quality and work harder to keep our customers" theme at an all-hands employee meeting when the workforce is embroiled in a labor contract dispute?
- *Best individual (for example, organizational level, functional responsibility, level of respect) to whom to send message.* Not only the content but also the authority level of the person sending the message will be a significant aspect of the message.
- *Physical and technical constraints (for example, facility size, transmission equipment capability/availability, time zones).* Will the conference room hold all the people needed to hear the message? Does the equipment have the needed capability? Will a phone call and ignorance of time zones awaken an irate customer?
- *Security/privacy/sensitivity issues (for example, of data and/or people).* Where will a manager and worker/associate discuss the performance review? Who might tap into a transmission and pick up proprietary organizational information (vulnerability to hackers)? What if the e-mail string gets in the wrong hands?
 - *Believability at the receiver based on the transmission method.* E-mails may look like "spoof" messages to the receiver. So many data breaches are due to "phishing," where plausible e-mails are used by receivers

allowing access to sensitive data. Legitimate messages may flounder if receivers think they are fakes.

- *Safety, health, and environmental issues (for example, adequacy of facility, emotional state of receiver, impact of message on receivers' values).* Is e-mail too impersonal for communicating with certain receivers? In the interest of economy of time and space, will some of the niceties that typically are part of written communication—for example, use of titles, salutation, less direct language, and so on—be left out? Will the combination of message and medium convey a conflict of personal values to the receiver(s)?
- *Whether the communication (data or information) should be retained—that is, the methods for storing, maintaining (updating, preservation), accessing (including security requirements), and duration of retention.*

Questioning Techniques

Asking the right questions in the right way of the right people at the right time and for the right reasons is a skill that can be learned. Inasmuch as the quality professional relies heavily on data, information, and knowledge to fulfill responsibilities, this skill is important. The skill of questioning is critical to learning, and it needs to be developed somehow across the organization. Examples of a few of the situations in which good questioning skill is essential are:

- Identifying the process used by a bank loan processor in preparing a loan for approval or rejection
- Determining the root cause of a problem
- Getting facts about a customer complaint from a field service technician
- Confirming whether a direct-report employee understands what good performance is
- Confirming that trainees understand the skill and knowledge from their training
- Verifying the spikes on a control chart and obtaining the rationale for each
- Determining the facts behind a supplier's deteriorating quality
- Understanding new requirements, specifications, and other mandates

To obtain data or information from another person or group usually involves asking questions. What is asked and the manner in which it is asked influence the quality of the response received (that is, accuracy, completeness, timeliness, and relevance to other pertinent data). Skilled interviewers such as employment interviewers, consultants, complaint adjusters, systems designers, salespeople, talk show hosts, detectives, trial attorneys, and many others develop the skill of extracting the data they need to meet their purposes. Three basic methods are employed:

1. Plan beforehand what is to be learned.
2. Ask mostly open-ended questions.
3. Actively listen and capture the responses.

Additionally, and depending on the situation, these questioners create a setting conducive to the types of answers they are seeking. For example, they use a professional setting for questions about quality issues, individual performance, and so on, a threatening setting for questions about misbehavior, crimes, and so on, and a warm and comfortable setting for questions soliciting opinions and suggestions and the like.

Often, a questioner will start with a few short, close-ended questions to obtain demographic facts or identification—for example, “What is your employee number? What shift do you work? What accounts are you assigned to? To whom do you report?”

Then, to probe the subject of the interaction, the questioner shifts to open-ended questions, such as “Can you tell me exactly the chain of events that led up to Mrs. Smith filing a complaint about the service she received? From your perspective, what could have caused the missing pages in Tuesday’s batch of policies mailed?”

The respondent’s answers frequently open the opportunity for the inquirer to probe further by asking another open-ended question. Also, some responses may not be clearly understood by the questioner, so the questioner repeats what was heard in the form of a question. For example, “Did I understand you correctly when you said . . . ?” This closed-ended question will usually produce a *yes* or *no* answer, sometimes followed by further explanation or followed up by the questioner—for example, “Can you tell me about that?”

The technique of *active listening* in two-way communication involves paraphrasing the message received back to the sender. Here’s an example:

(Sender) “I need you to get the report you’re working on out to Mr. Blank by noon today.”

(Receiver) “I understand you want me to get the analysis of perpendicular appendages for our Purple People Eater toy line to Mr. Blank no later than noon today, no exceptions.”

(Sender) “You’ve got it,” or “No, that’s not the one I mean, it’s . . .”

In this scenario the sender knew what was needed, but the receiver could have been working on more than one report. Fortunately, the receiver listened actively by sending back the understanding of the order.

The speed of speech is said to be four to five times slower than the speed of assimilating the spoken word. Typing is often even slower. What is done about the gaps is the difference between an effective listener and a mind wanderer. The effective listener, instead of drifting off to other unrelated thoughts, focuses on the topic at hand, using the gap to begin to formulate questions to ask to learn more (cognitive multitasking or well-practiced serial tasking). Examples of questions to oneself using this technique are:

- “What is being said, and what does it really mean?”
- “How does that relate to what was said earlier?”
- “Where is this going, and what point is the speaker attempting to make?”
- “How is what I am hearing useful to me?”