

Chapter 5

Communication

Poor communication has long been a problem in the construction industry. Part of the trouble is the way the industry is organised. The project team is made up of people from many different firms. Their contributions vary and a lot of information has to pass among them. This requires a well-organised network of communication using the latest technology. Even when this network exists, communication still breaks down at a personal level, because people fail to keep their messages simple; they pass on too much information or too little; the information they give is inaccurate or misleading.

On the receiving end, people are flooded with paperwork they haven't time to read, yet often they cannot get the information they want. Estimates may be wrong, drawings out-of-date, descriptions ambiguous. Meetings go on for too long and people stop listening.

The size of the firm matters. In small organisations, communication is often good. There is more face-to-face contact, so if people don't understand what is being said, they are more likely to say so and the problem is cleared up straight away. Communication is more direct. Those making the decisions are closer to those who have to implement them.

Larger firms rely more on the written word. This puts the message on record, but misunderstandings cannot easily be cleared up. Information can be delayed and distorted as it goes up and down the hierarchy. People are separated by divisions and departments, sometimes by shifts.

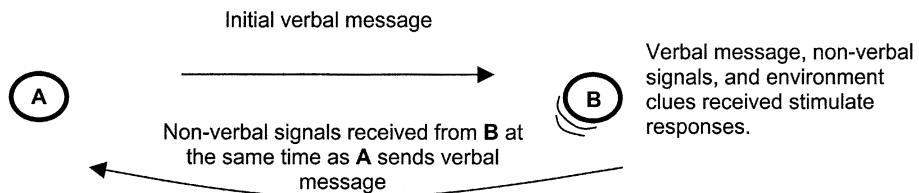
Formal communication channels can be slow and impersonal. The faster 'grapevine' takes time to develop and is often discouraged anyway. The larger the firm, the more acute the communication difficulties tend to be.

Poor communication skills make matters worse. Most people, including managers, are poor communicators and don't even realise it. Yet, improvements can easily be achieved through training or simply by making people aware of the main pitfalls and giving them feedback on how well they are communicating.

Communication process

Communication is one of those skills that we all use, yet few of us give any real consideration to how complex the process is. It is an aspect of the human that sets us aside from almost any other species on earth.

Face-to-face communication is not one way, it is transactional (Figure 5.1).



- A sends a message to B
- While A is sending the message, B is sending back communication signals, e.g. facial expression, eye movement, body language, etc.
- Both parties communicate at conscious and subconscious levels.
- Although B's body language and facial expressions suggest that B understands, other signals, such as speed of reaction and actions, suggest that B's interpretation of the message is incorrect.
- A recognises that B does not understand even though B thinks that s/he understands.
- The interesting phenomenon here is all of this can be done without B speaking and can occur before A has finished sending his/her initial message.

Figure 5.1 Non-verbal responses during interaction.

During interaction it is possible to recognise whether the people we are talking to are following and understanding what we are saying, even before we have finished a sentence. During conversation we may recognise that a person thinks that they understand what we are saying, yet their body language, facial reactions and other signals inform us that they have not actually properly understood the message. This helps us to change our sentence and add further information to help the person understand.

Because communication skills are both hereditary and developed from a very early age many of the interactions sent and received are processed at a subconscious level. We give little thought to the information being received and sent, although we do react and process the information subconsciously.

Although people are often told that they must consider what they say before they say it, during face-to-face interaction people do not process speech in their conscious mind. Conscious processing is too slow. During interaction, speech and grammatical structure, sentences and words are processed in the subconscious mind (LeDoux, 1998). While it is possible to prepare for meetings and rehearse speeches, once people react to others in a natural communication environment they will

respond through their subconscious processing. If people had to think through exactly what was to be said before verbalising each sentence the natural flow of speech would be broken up and slow. This does not mean that people cannot alter the way they communicate.

Using training, education and experience people develop a repertoire of skills that the subconscious draws upon when initiating communication and constructing responses. What this means is that the subconscious may have a library of responses and actions that it has previously used successfully in certain situations. If the situation encountered is similar to that previously encountered the subconscious quickly processes a reaction before the conscious mind has a chance to consider it. The conscious mind may be aware of the interaction as it occurs, but may take little part in the processing of the communication.

If, however, the situation is not similar to any previous encounters the reaction may be a result of the subconscious and conscious mind. The subconscious may prevent us reacting straight away with an incorrect response while the conscious mind thinks over the matter, attempting to understand and contextualise the situation.

An example of this would be when people meet and greet each other. If a person meets a close friend they do not normally take time to think about how they will greet their friend, they will normally rely on one of the ways that they have used so many times in the past. However, if a person is introduced to someone they have never met before, as soon as they encounter the person they may start to consciously and sub-consciously assess the person, considering how the person is acting, the type of person they are and what would be an appropriate response. The greeting may still be one that has been used before, or one that has previously been used in similar situations. However, greater effort will be used to think through and consciously process information, trying to determine what to say or do next.

Why experience, education and training are important for effective communication

To ensure that speech is successful, professionals should rehearse and train for different events that they are likely to encounter so that when the situation arises the speech and reaction come naturally. A natural reaction is one that is processed in the subconscious, one that is given very little thought. Although many people do not overtly train their communication skills, they may often engage others in low risk situations. During such encounters they may subconsciously practise different interaction approaches. Some approaches will not work and others will be more successful in gaining the required outcome. Once successful interaction techniques are developed in low risk situations a person's confidence may increase and they may safely enter more risky situations, drawing on the skills learnt in the low risk environment.

- *Conscious processing* is slow – when a person processes something in their conscious they are having to think things over, or rehearse, what to do or say before doing it.

- *Subconscious processing* is quick – it relies on a person’s inbuilt survival skills and patterns of behaviour, which are hereditary and have evolved. Subconscious processing draws on experiences and skills learned from an early age. Experiences gained through training and education may become so well rehearsed that they no longer need any real thought and are quickly processed in the subconscious mind.

Group communication – task and relational interaction

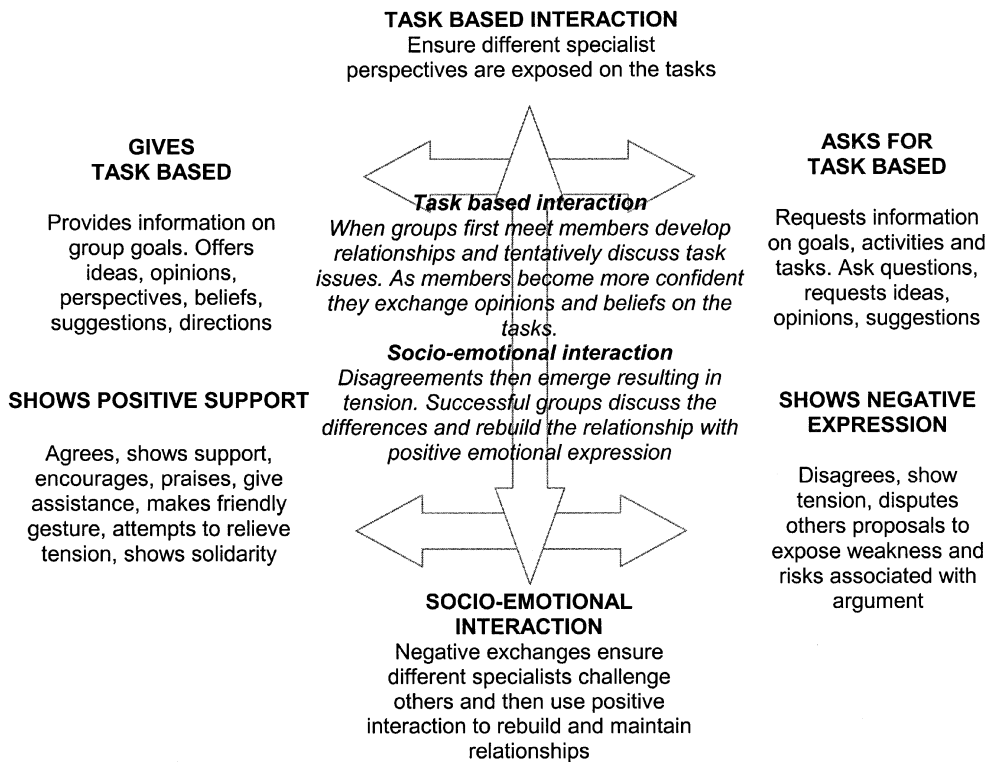
Within this diverse and complex industry it can be difficult to form and maintain inter-organisational relationships. However, without an organised social system, individuals are limited to their own efforts; the accomplishment of major projects is achieved through interlocked co-ordinated activities. It has long been recognised that communication can be divided into two distinct categories: communication aimed at achieving the group goal (task based) and interaction that is used to maintain relationships (socio-emotional) (Bales 1950, 1970; Frey, 1999; Keyton 1999, 2000).

Successful work groups balance task and relational communication (often called positive and negative socio-emotional interaction). As team members work through tasks, differences of opinion emerge and a level of conflict develops. Thus, task-based discussions result in tension that is expressed as negative socio-emotional interaction. Negative socio-emotional interaction threatens relationships. When dealing with a problematic task, group members diffuse negative emotion with positive emotional discourse (e.g. by showing support, joking, etc.), returning to the task issues once the tension has been dissipated. If negative socio-emotional talk occurs, tension is released in stages, first through task related discussion (e.g. finding common ground, explaining and reasoning, giving logical or rational explanation, etc.), then by positive socio-emotional acts (e.g. by agreeing on issues, showing support and making friendly gestures or comments).

The total communication of healthy groups is said to contain several times as much positive socio-emotional as negative socio-emotional acts (Shepherd, 1964). Group members prefer positive feedback (Jacobs *et al.* 1974); interaction that suggests the group is effective increases morale (Frye 1966). Although groups may prefer positive emotional feedback, Cline’s (1994) research found that too much emphasis on agreement resulted in unsuccessful outcomes. High levels of agreement (positive socio-emotional interaction) and a very low level of disagreement and conflict are characteristics of groups that are subject to ‘groupthink’. Groupthink occurs where individual members of the group feel unable to show their concern with suggestions or disagree with others, thus the group seems to be in unanimous agreement, yet, for a number of reasons, individuals may suppress their dissent. While it is clear that positive relational (socio-emotional) communication should be greater than negative interaction, the amount that it should be greater is disputed. Gorse’s (2002) research into construction meetings between the management and design team found that the difference between positive and negative interaction in

successful teams was only 1–2% greater than those teams which did not achieve their objectives. The important theme that runs through all of the research is that task based discussions will result in tension (negative socio-emotional interaction), but that the tension is dispersed through positive socio-emotional interaction. Successful working relationships are maintained in a climate that has more positive than negative socio-emotional interaction. However, the occurrence of negative emotional interaction is important to encourage diversity and remove groupthink.

Figure 5.2 provides an indication of how task based and socio-emotional interaction are used.



Note: While more positive than negative socio-emotional interaction is required to help groups perform, too much emphasis on positive socio-emotional interaction can be detrimental. Failure to engage in critical discussion reduces potential to identify risks.

Figure 5.2 Use of task based and socio-emotional interaction (Emmitt and Gorse, 2003, p. 177).

Functions of communication

Communication serves many functions, all of which are important in construction management. The list below is not exhaustive and most of the manager’s tasks involve several of these functions.

Information function

Information is being exchanged all the time. A manager explains a company policy to an engineer; a joiner tells an apprentice how to prepare a joint; a senior estimator tells a junior how to build up a unit rate.

But information passes both ways. The engineer will tell the manager about a problem with a sub-contractor. The joiner's apprentice will talk about a grievance over bonus.

Instrumental function

Communication is used to get things done. Good communication is vital in organisations, where groups undertake discrete tasks and depend on one another to achieve mutual goals. People need to know what they are expected to do, how quickly and how well. In construction, most of the targets are available in drawings, programmes and specifications, but the manager needs skill to communicate them clearly and make sure that they have been understood.

Social relationships function

Much of the communication which circulates round an organisation is aimed at maintaining relationships between individuals and groups, so that they continue to work as a team. The larger the organisation, the more important this social contact becomes. The contact itself is not directly productive, but it facilitates the kind of communication that is the life-blood of the business. On site, where communication channels have to be created from scratch, social contact helps create co-operation between members of the team.

Expression function

Communication enables people to express their feelings. This may happen spontaneously, as in an argument during a site meeting. But it may be carefully planned, for instance, to create a favourable impression at an interview. A grievance procedure is an example of this function operating at a formal level.

Attitude change function

Simply giving orders is not always enough. Managers may need to change employees' attitudes to get the best work from them. This would apply if, for instance, employees felt that the firm was treating them unfairly.

But this can be difficult. Some kinds of attitude are resistant to change. Others are easier to influence and personal discussion is often the best way. The manager may use group discussion to achieve certain kinds of attitude change, especially where several people are affected.

Role-related or ritual function

Sometimes people communicate because they are expected to. An operative who talks little may be labelled unsociable. The manager is often expected to give a speech or have a few words with a retiring employee.

Communication structure

An effective system for passing on information and instructions, and for receiving feedback, is essential for management control. In construction, this system must work both within and among the many firms – consultants, contractors, sub-contractors, suppliers, and client – who contribute to the design and production of the finished structure.

In large organisations, it becomes necessary to use recognised channels of communication to ensure that people get the information they need. Even in small groups, studies have shown that a communications ‘free-for-all’, in which anyone talks to anyone, can be less effective than a network which directs information through specific channels. In a business, these channels are:

- A leadership or line hierarchy, linking people who decide policy with those who implement it.
- Functional and lateral relationships, linking people in different sections, some of whom contribute specialist knowledge and skills.
- Procedures through which managers and workers can consult and negotiate with one another to resolve conflicts and increase commitment and co-operation.

Yet the existence of these information channels is not enough. Communications must not only reach the right people, they must be accurate, timely and clear. This demands reliable sources of data, prompt action and skilful communication.

To produce reliable information, firms need procedures for recording and storing data systematically and retrieving it in various forms to suit different needs. For instance, some of the data needed by contracts managers, estimators and planners are similar, but they want the information for different reasons and in a different form.

Information and telecommunications technologies have made the information generated during design and construction more reliable. Cheap, portable PCs have made it more accessible. But technology alone will neither make people understand a communication nor make them willing to act on it.

The direction of communication

Communication within companies and project organisations can be classed as upward, lateral or downward, although the distinction is not always helpful. Some lateral communication is between people of roughly equal status (e.g. consultant to

contracts manager), whilst some is between people with functional relationships (e.g. plant manager and site supervisor).

Within a work group, a lot of lateral communication takes place and is expected to take place, as people swap information and advice about the job. Much of the information which passes informally along the grapevine is lateral and travels fast. It can be vital for getting work done quickly and efficiently.

Upward communication provides essential feedback to management. It is used for reporting progress, making suggestions and seeking clarification or help, although people often seek help from their peers before going to their bosses.

Managers may have difficulty in getting feedback on progress and costs when things are not going well. Bad news often reflects on someone's ability, possibly the manager's, so no one is in a hurry to break the news. Upward communication for control purposes is often delayed and distorted. Supervisors and managers are told what they want to hear, or what subordinates want them to hear – and only when they are in the mood to take it! Upward communication can become distorted when the sender wants promotion. People are reluctant to take suggestions or complaints to their bosses if it means admitting to failure.

Traditionally, management discouraged upward communication, but modern organisations encourage it. This is achieved through participative management, joint consultation, disputes procedures and empowerment. The employment legislation has put pressure on firms to make sure that employees can express their grievances and get a sympathetic hearing.

Downward communication is used not only to give instructions and explain strategies and objectives, but to give people information about their progress, as in appraisal interviews, and to give advice, as in contacts between head office specialists and site personnel.

More firms are recognising the importance of keeping the workforce informed about policies and activities, although some companies don't even tell their managers what is happening! However, it is widely accepted that employees ought to know about the firm's background, objectives and plans, and should be kept up to date on their prospects. Most people want to know how their work fits in with the organisation's overall goals, otherwise a sense of isolation and alienation from the task can set in.

Communication with sub-contractors demands special attention. Sub-contract site personnel have responsibilities both to their own company and to the main contractor, so that lateral and downward communications 'compete' for priority. This is a problem in any task-force or matrix organisation and there is heavy reliance on contract documents to define the duties and obligations of the contractor and sub-contractor.

It is vital that good communications are established at the outset and that contractor and sub-contractor have continual, direct contact throughout the sub-contract period. Special problems arise with engineering services on complex projects and main contractors sometimes have to appoint services co-ordinators to liaise with services sub-contractors and consultants.

Why communication fails

Many organisational problems are caused by communication failure. Breakdowns occur because of faulty transmission and reception of messages and because people put their own interpretation on what they see and hear. And, of course, the computer is often blamed! Common causes of communication failure are given below.

Poor expression

The communicator does not encode the message clearly because of difficulty in self-expression, poor vocabulary, lack of sensitivity to the receiver or, perhaps, nervousness.

People often fail to speak and write directly and simply. Obscure and redundant words clutter messages and hide their meanings. This problem shows up clearly in many formal communications such as reports and standard letters.

Reluctant communicators

People who avoid communication are often reluctant communicators. An individual's willingness to speak may lie outside the direct influence of the group (Wallace 1987); however, an individual's reluctance to communicate may affect the ability of the group to make a fully informed decision. McCroskey (1977; 1997) found that, under virtually identical situations, some people will initiate communication and others will not. Shyness may occur due to communication discomfort, fear, inhibition or awkwardness.

In groups, apprehensive individuals talk less, avoid conflict, are perceived more negatively and are less liked by other members who are not apprehensive about communicating (McCroskey and Richmond, 1990; Haslett and Ruebush, 1999). Highly apprehensive people also have a tendency to attend fewer meetings (Anderson *et al.*, 1999). Anderson *et al.*, reporting on the findings of group research, found that the degree of communication apprehension diminishes with group experience.

Communication dominance

As well as reluctant communicators, in most groups there are individuals who interact more frequently than other group members do. In decision-making groups, those who talk the most 'win' the most decisions and become leaders (Bales, 1953), unless their participation is excessive and antagonises the other members (Hare, 1976). The more proactive interactors have a greater influence on socialisation and the development of group norms. Those who dominate communication can use their influence on the group to direct questions to members; however, they may also suppress members. When less knowledgeable members dominate interaction they may suppress specialist contributions from the expert members of the group. If

dominant communicators are not aware of the specialisms within the group or want to ignore other members, they may be successful in preventing experts who are less active from participating and giving their valuable knowledge.

Failing to ask questions

Asking questions is the single most effective way to extract ideas and information, yet most people are not very good at asking questions (Ellis and Fisher, 1994). The level of question asking within groups is often low compared with other types of communication activity. People have a tendency to give information, opinions and suggestions rather than ask questions (Hawkins and Power, 1999). Also, some questioning approaches can be perceived as accusation (for example ‘who did that?’) and can result in defensive arousal that can reduce the effectiveness of group discussions, although questions without emotional overtones do not ordinarily result in defensive behaviour (Gibb, 1961). While it would be expected that the most inexperienced or least skilled people would tend to ask the most questions, research has shown that it is often those who are more experienced or capable who ask the most questions (Gameson 1996; Gorse, 2002). Asking questions is different from asking for help. Studies suggest that where professionals do not understand a situation they are often reluctant to ask for help. This phenomenon seems to increase as the status of the professionals increase (Lee, 1997).

Asking closed and open questions

Sometimes closed questions, i.e. questions that have a limited or specific answer (e.g. ‘yes’ or ‘no’) can be useful to get a quick answer without irrelevant or misleading information. Other times, open questions, which allow people to explain their answers, are more useful.

Based on information collected during focus groups, many project managers claimed that their subcontractors exaggerate the truth or lie about performance. One problem that seemed to occur was that people would offer ‘yes’ or ‘no’ answers to questions rather than supplying detail. Thus, when subcontractors are asked if they will complete their work by the weekend, they often respond with a simple ‘yes’, when in fact only part of the work will be completed. One way of avoiding such answers is to vary the method of questioning. With trustworthy people we can ask simple questions, which may only require a ‘yes’ or ‘no’ answer. Where we have learnt not to trust people we can ask for more detail, or rather than asking a question, we can give an instruction e.g. ‘Tell me what needs to be done to finish the work’, or ask an open question e.g. ‘Can you explain what work you have left to do?’, then follow up with a more delving question e.g. ‘What plant, equipment and workforce have you ordered to complete the works?’. Always take a strong interest in what is being said. Ask them to clarify dates and numbers, let them know you are recording the detail and will follow up with a visit to site ‘just to check everything is

going OK'. Such attention may galvanise the person into action, if it does not, at least as a manager you are aware of the problem and need to seek a remedy.

Failing to seek help

Professionals may not seek help, even when help is required, as help-seeking behaviour implies incompetence and dependence. Research on help-seeking behaviour suggests that as the status of the professional increases they become more reluctant to seek help from others (Lee, 1997).

Research has also shown that costly errors made in multi-disciplinary projects could have been prevented by seeking expert help that was available at the time, for example, Capers and Lipton's (1993) research into the behaviours of engineers involved in the development of the Hubble Space Telescope. During the development of the telescope the engineers were monitored using surveillance equipment. The engineers were found to avoid interaction with the specialist employed to provide expert optical advice. The engineers' behaviour showed that they did not want faults to be seen by others and wanted to resolve problems on their own, even though they did not have the knowledge to resolve the problems. The result was that the telescope was launched into space with faults, and the expert who was employed to provide help and advice, but was blocked during development, was used to help correct the faults when the telescope was in space. It would have been much more effective to correct the problems before the launch by seeking help and consulting with the experts.

Help-seeking behaviours are fundamentally interpersonal; one person seeks assistance from another (Lee, 1997). Seeking help from others often occurs simultaneously with information and feedback-seeking (Morrison, 1993). Individuals are more likely to seek help from equal status peers (Morrison, 1993; Lee, 1997) and others who have helped them earlier; co-operative patterns are reciprocal (Patchen, 1993).

Failing to disagree

Disagreement is often seen as a negative term, yet it is found in most observations of group interaction. Moreover, Cline (1994) found that when groups avoid disagreement the vulnerability of a proposal may be overlooked. Conflict during discussions can have positive effects on decision-making, challenging and evaluating proposals and exposing risks of decision; however, if conflict results in a dispute (allocating blame and fault), outcomes of a satisfactory nature are substantially reduced.

A certain amount of challenge, evaluation and disagreement is necessary to appraise alternatives and reduce the risks. Furthermore, Averill's (1993) review of anger based research found that a typical angry episode would often result in change which had positive benefits, and typically the relationship within which the anger was expressed was strengthened more often than it was weakened.

Overloading

Managers often give and receive too much information at once. This causes confusion and misunderstanding. Research has shown that the amount of information a person can cope with at one time is quite limited, especially when the subject matter is unfamiliar and several communication channels (spoken, written, graphical) are being used.

Poor choice of method

People don't always stop to think how to get their message across. Sometimes the spoken word is best, but what is said is usually quickly forgotten. The written word is often preferred and it leaves a semi-permanent record. A simple sketch may be clearer than a lot of words. The method must suit the communication.

Disjunction and distortion

Sender and receiver may not share the same language, dialect, concepts, experiences, attitudes and non-verbal behaviour. Non-verbal cues can have different meanings in different cultures. A message can be misinterpreted because receivers see it in terms of their own experiences, expectations and attitudes. Their outlook and what they think is important will influence how they interpret the message.

Communicators may also 'shape' the message, sometimes unconsciously, to protect their own position or through lack of trust. People often edit information when they feel their credibility is threatened.

Distance

Designers are separated from contractors, sites from parent companies. This limits face-to-face communication and non-verbal signals, like facial expression, which help the communicator and receiver to judge each other's responses.

Status differences

People in relatively junior positions may find it difficult to communicate with those in more senior positions. The opposite can happen too. People may be reluctant to report difficulties or lack of progress to their managers, yet they often like to be consulted and given the chance to air their grievances.

Feelings

How a person feels about a message or about the sender can distort or overshadow its content. In face-to-face communication, the sender may be able to detect this problem, often through the body language of the other person. If a message is

received unfavourably, a negative attitude may be provoked in the sender and this in turn affects the receiver. Positive feedback has the opposite effect. If people are aware of this problem, they can avoid setting up a chain of negative reactions. People sometimes totally ignore negative or critical communication to protect their self-esteem.

Skilful managers recognise that each communication is more or less unique. They judge the situation and use all their skills to ensure that people understand what they are trying to convey, accept it and are willing to act on it.

Communication methods

People communicate through language and pictures. Language is conveyed through speech, writing and symbols; pictures are communicated by graphical means, such as drawings and photographs. Managers seldom give enough thought to choosing the best means for conveying an instruction, idea or piece of information. Each method offers a range of options, but has drawbacks as well as strengths. One, or a combination of, methods will usually provide the manager with the right vehicle for conveying a message.

Spoken communication

This can be direct, face-to-face conversation or an indirect telephone call or recorded message. Face-to-face communication is a powerful method, although many people do not use it skilfully. It takes several forms:

- Individual directives, such as a work instruction.
- One-to-one discussions, as in staff appraisal.
- Manager to group, as in a briefing.
- Group discussions, as in site meetings.

Spoken communication needs careful planning, clear expression and the ability to arouse the listener's interest and support.

With indirect conversation via telephone or two-way radio, lack of non-verbal feedback can cause problems. With recorded messages, the sender gets no immediate feedback at all.

If the manager wants to give the same information orally to many people, it usually pays to call them together. But if the manager wants to gauge individual reactions or understanding, the group should be small.

Spoken communication leaves no permanent record. This encourages people to speak more freely, but they soon forget most of what they hear.

Meetings

Organisations use meetings to exchange information, generate ideas, discuss problems and make decisions. Some meetings, like company annual general meetings, are required by law.

Site meetings are used to inform, co-ordinate, allocate tasks, update plans and check progress. They create commitment and enable people to get to know and trust one another. They help people to understand one another's viewpoints and problems. Problem-solving meetings have become more common because the manager seldom has all the information and skills needed to find a solution single-handed.

However, meetings can fail. They can be so formal that time is wasted on rituals. They can be so casual that they lack direction and purpose. In meetings, people seldom build on one another's ideas. Instead, they wait for the chance to make their point, ignoring what was said earlier. They often criticise and antagonise one another before ideas have been properly debated.

A good chairperson avoids competing with the others, encourages everyone to contribute, listens to what they say, keeps the group on course and makes sure all ideas are considered.

However, chairpersons can unwittingly stifle creative suggestions and discourage the positive thinking that is needed to throw up new ideas. Also, they are usually senior employees and have influence outside the meeting, so people are careful what they say.

Some people believe that unchaired meetings are more productive, but others claim that even a reasonably competent chairperson can increase the value of a meeting. He or she acts as a conciliator, controlling aggressive and defensive behaviour; and sums up, stating clearly the agreements and decisions reached.

Before calling a meeting, a manager should ask:

- Is the meeting necessary?
- What will it achieve?
- How can it be effectively managed?

Meetings and action points: make people act on action

It is common for meetings to identify issues and then decide for action to be taken; however, in many meetings the specific action agreed fails to be delivered on time.

To help instil responsibility for action:

- Discuss the issue thoroughly.
- Identify action and responsibility.
- Confirm that the action point is agreed with the person responsible.
- Ask the person responsible to specify a time when the action is to be undertaken and completed.

- Record the action, person responsible and the date that the action will be undertaken and completed in the minutes. Such information can also be recorded by the chair or project manager in their diaries to help them remind parties and check progress.
- Between meetings, remind people of action points using written communication, save evidence of reminder for the next meeting.
- Nominate someone to check on the progress of the action and report.
- If at a subsequent meeting the action agreed is not delivered by the specified date, find out why and ask for a new date of delivery. Both the previous and new date should be recorded in the minutes.
- If parties continually fail to deliver, the meeting minutes and reminders become embarrassing for the individuals and provide strong supporting evidence for employment, contractual or legal disputes. However, the act of recording dates agreed and any slippage often results in action and prevents issues developing into disputes.

Project meetings

These meetings, attended by members of the project team, are used to:

- ensure that the contractor and other team members understand the project requirements and have an opportunity to check contractual, design and production details and ask for clarification or information;
- ensure that proper records are kept and contractual obligations met;
- compare progress with targets and agree on any corrective action;
- discuss problems like delays or sub-standard work which may affect the quality, safety, cost or timing of the project;
- ensure that contractors and sub-contractors agree on action necessary to meet their obligations;
- check that changes are confirmed in writing and that work is recorded and agreed.

The designer, quantity surveyor and main contractor normally attend project meetings, together with those consultants and sub-contractors involved at each stage of the project. Normally, meetings are held at regular intervals.

Site meetings

The main contractor will hold regular site meetings, some of which will be attended by sub-contractors and key suppliers. The designer may be invited. A meeting will often be used for several purposes. These may include:

- *Internal control*, to review progress, cost, safety and quality against targets and contractual commitments; to update plans.

- *Co-ordination*, to ensure that the work of the main contractor and sub-contractors is properly co-ordinated.
- *Problem-solving*, to identify and discuss problems such as delays, materials shortages and labour difficulties, and to take action to remedy them.
- *Contract administration*, to identify any information needed; to check that proper records are being kept; to monitor the documentation and agreement of variation orders.
- *Labour relations*, to discuss problems relating to work methods, working conditions, safety, incentives, etc.

Written communication

Written communications range from a hand-written note on a scrap of paper to a formal, word processed report. They can be transmitted manually or, as is increasingly the case, by electronic means using systems like fax, e-mail or the Internet. Technology has made it possible to transfer a written communication, in hard copy, to someone's desk the other side of the world, in seconds.

Written communications can be carefully planned and leave a permanent (or at least, semi-permanent) record. On the other hand, an effective written message demands considerable skill and can take time to produce. Once published, it is difficult to retract. People are therefore careful what they write. Their readers can quickly see any contradictions when the message is on paper!

Reports

There are many kinds of report. On site, they give feedback on costs, progress and other aspects of performance. At head office, they may precede a policy decision or change of procedure, or simply give an account of something happening in the organisation. Reports don't necessarily result in decisions or action, but frequently do because they show a deviance from intended standards or targets.

Business reports can be oral, but are usually written because they deal with matters needing careful consideration. They are often supported by figures and diagrams.

A good report is clear, accurate, concise and timely. It should:

- contain everything the reader needs to know and nothing more;
- present the subject matter accurately and logically, giving sources of data, where appropriate;
- make sense to anyone intended to read it;
- clearly summarise the key points, conclusions and any recommendations.

Most reports are structured to help the reader obtain information easily. The exact arrangement depends on the purpose and subject of the report, but typically includes an introduction, the body of the report and a terminal part.

Introduction

This states the aims and terms of reference. It may explain the format of the document and give an outline of the findings. A good introduction focuses the reader's attention on the theme and purpose of the report. There may be a title page and contents page, depending on the length and formality of the report.

Body of report

This contains the subject matter and discusses the data and findings. It need not necessarily be lengthy. Some of the best reports set out the main points in short, crisp paragraphs. Sub-headings make the arrangement clearer, but should be short and self-explanatory.

If the data are bulky, they should be put into appendices at the end of the report. This keeps the body of the report short and clear and readers need only refer to the appendices if details are needed.

Terminal part

This ranges from a *Summary*, if the report has simply gathered data, to a lengthy *Conclusions* section, if advice has been sought. Some reports contain *Recommendations*, where stipulated in the terms of reference.

Busy managers welcome brevity and often rely on reading the summary or conclusions of a report. The terminal part of the report should contain nothing new, apart from any appendices and, if necessary, references and an index.

Plain talking and writing

Business communication is about getting information and ideas across to people. So much information flows through the organisation nowadays that neither manager nor team has time to waste on elaborate communications. Messages must be put over as clearly and succinctly as possible.

Engineers may wish to know that 'transmissions containing formal gearing require detergent lubricants of high viscosity range', but the fitter wants to know whether to use green label oil in the lower gear box (Maude, 1977).

Writing and speaking skills have been neglected. Few managers are trained in the use of language beyond their school-days. The following extracts from construction publications show how much improvement is possible:

Drawings are all too rarely fully available at this stage of the proceedings, but now is a good opportunity to initiate a comprehensive drawing register and index. [27 words]

The author was trying to say: 'Start a drawing register and index now, even though some drawings are missing.' The main point comes across here in half the words.

A building magazine reported:

It is difficult to approach the subject of the possible takeover and rehabilitation of failed housing from the public sector by entrepreneurs from the private sector with any confidence, simply because there is not a single case where this has actually happened. [42 words]

In other words: 'As no private developer has ever taken over failed council housing, it is difficult to comment'. (16 words)

Vague, general words should be driven out in favour of 'concrete' words. Key words should be near the beginning, so that the receiver knows what the message is about.

Another building publication had this to say:

The more optimistic among us might have expected that post-war housing, taking advantage of new building techniques, would be less troubled by condensation and damp than pre-war housing. Unfortunately the reverse is the case. [34 words]

What the author meant was: 'Post-war houses have more condensation and damp troubles than pre-war housing, despite new techniques'. (14 words)

Some might argue that the original versions had more style. Harold Evans (1972) cites Matthew Arnold's advice: 'Have something to say and say it as clearly as you can. That is the only secret of style.' One of the beauties of the English language is that clarity, vigour and economy of words can go hand in hand.

Evans says that people should write positively, prune ruthlessly, and care about the meanings of words. His advice is given below.

Limit the ideas in sentences

Sentences should communicate one idea. Short sentences make for clarity. Too many compound sentences make the message heavy-going. The following sentence contains too much information:

Three bricklayers who between them had more than twenty years' continuous service with the company and who, until now, had given no cause for complaint, were ordered off the site today by the angry supervisor, after two verbal warnings and a written warning about their bad behaviour and poor workmanship.

Be more direct

Use the active voice. 'The manager called a meeting' is more vigorous and economical than the passive version: 'A meeting was called by the manager'. A succession of passive sentences can ruin a communication.

Be positive. Make sentences assertive. 'The manager has abandoned the new bonus scheme' is more effective than the negative statement: 'The manager is not now going ahead with the new bonus scheme'.

Evans argues that government officials, reports and ministers are the worst perpetrators of the passive: 'It was felt necessary in the circumstances; it should perhaps be pointed out; it cannot be denied', and so on.

Communicators should avoid double negatives. 'It is unlikely that annual bonuses will not be paid to site staff' means that they probably will! Look at the improvement that is possible:

At its meeting last month, the Board of Directors decided that it was highly unlikely that there would be no deterioration of the housing market and that the company could not be expected to maintain its present market share unless a drastic change of policy was agreed by all concerned. [50 words]

The Board of Directors warned at last month's meeting that a drastic policy change is needed to maintain the company's workload in a declining housing market. [26 words]

Avoid monotony

Messages can become monotonous if the suggestions above are too rigidly followed, but there is plenty of scope for variety. The structure and length of sentences can be varied without losing vigour and directness. The function of a sentence can be changed between statements, questions, exclamations and commands.

Avoid unnecessary words

Every word should earn its keep. If a word doesn't add something to a message, it should be left out. Redundant words waste the reader's time and obscure meaning. Driving out abstract words often saves on length and aids clarity. Abstract nouns like issue, nature, circumstances and eventuality are often mere padding:

In the circumstances, the plasterers should be paid last week's overtime, even though the issue cannot be resolved to the entire satisfaction of the manager because of the faulty nature of their work. [33 words]

The plasterers should be paid last week's overtime, even though the manager is still dissatisfied with their work. [18 words]

Economy has to be used intelligently, but writing with concrete words is usually shorter and more interesting. As Harold Evans points out, words stand for objects, ideas and feelings. Failure to match words with objects leads to vagueness.

| | |
|---|----------------------|
| Car parking facilities | Car park |
| Adverse climatic conditions | Bad weather |
| The canteen has seating accommodation for 80 people | The canteen seats 80 |

Like words, signs and symbols also stand for objects and information. They have become popular and important in communication. When they make use of icons, as they often do, they become graphic communication.

Graphic and numerical communication

Written communication can be unsuitable when information is extensive or complex. Text ceases to be effective when:

- whole paragraphs have to be read before meaning can be understood;
- individual facts or numbers are difficult to single out from the mass of data; or
- trends are hard to identify and comparisons difficult to make.

In construction, there is heavy reliance on graphic and numerical communication, mostly as drawings, diagrams, schedules and charts. A single drawing often conveys a great deal of information in a much clearer way than would be possible using words alone. Drawings are very useful as long as they are accurate, easy to understand and supplied at the right time. Bills of quantities use numerical data linked with tightly structured text to give condensed information. They are expected to fully and accurately describe a project. Bar-charts and network diagrams are good ways of presenting information which is partly numerical and partly written. They are a valuable tool for management control.

These communication methods are not always satisfactory. A designer's drawing may be supplied late or may be unclear. Bills of quantities don't always describe the work as fully as they should. Programme charts are based on approximate information and may not be kept up-to-date.

However, charts, tables and graphs are powerful methods of communicating certain kinds of information. They are often regarded as an aid to text communication, but can in fact do the main work of communicating (see Fig. 5.3).
Tabulated information:

- makes the information clearer by presenting it in a logical way;
- communicates more concisely than would be possible using words alone;
- makes comparisons much easier, by arranging data in columns and rows.

Graphic presentation is especially useful for:

- highlighting key trends or facts in complex information;
- showing relationships and differences;
- displaying information that can best be understood against some visual scale.

On the other hand, graphic information takes time to produce and can only effectively show a limited amount of information at one time, without causing confusion.

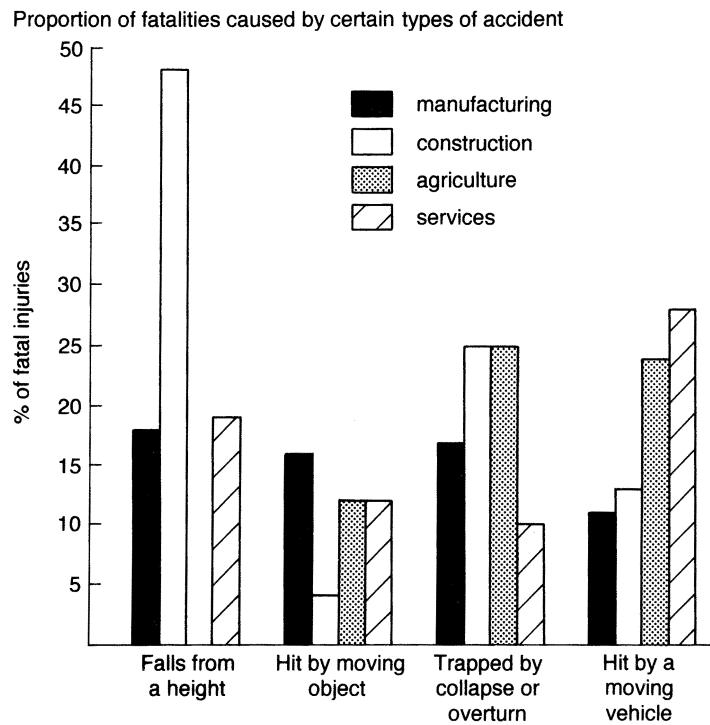


Figure 5.3 Example of graphic communication.

Information management

Communication is about moving information around and processing it in various ways. Some of the information may be in the form of ideas or expressions of feelings, but it still affects organisational performance. Because communication is the lifeblood of an organisation, managers now recognise that creating effective systems for managing information is crucial to their success. Information technology (IT), with its associated fields of microelectronics and telecommunications, has revolutionised information management (and therefore communication) in several ways, in particular by:

- speeding up enormously the processing of information (collection, collation, analysis, synthesis, presentation and transfer);
- making available to organisations much more information about their own performance, knowledge of their competitors, and data about other external bodies, events and trends;
- improving management information systems through computer-based systems, giving managers faster access to better information, leading to more effective planning, decision-making and control.

It is easy to decry IT as merely a tool of management, but it is much more than that. IT does not simply improve communication, it performs work for the organisation. For example, computer programs can simulate dozens of project management decisions the manager might make, and present and compare the outcomes. Such a task, performed in minutes or even seconds using a PC, can produce results which might have taken the manager weeks or months to achieve (if at all). Database technology can be used to manage the large quantities of data generated on projects. Flowers (1996) describes the operation of relational databases and shows how data can be structured to give maximum benefit to the manager on a construction project.

Expert systems already exist, programs which perform tasks using artificial intelligence to simulate human expertise. These systems can make diagnoses and judgements, cope with unreliable and unclear information and handle probabilities ('it seems as if...') and possibilities. Developments in IT are so far-reaching, they will require managers to rethink words like information and system, and perhaps even the concept of management itself (Harry, 1995).

The implementation of computer-based management information systems can create problems, typically:

- *Negative attitudes to change.* Many employees resent having their tried and tested routines overturned.
- *Lack of employee commitment.* Employees have not been consulted or involved in the design of the new system.
- *Disruption of organisation structure.* The system disrupts established departmental boundaries.
- *Disruption of informal communications.* New systems alter communication patterns and destroy the informal networks which existed.

In addition, some communications, at a more personal level, depend for their effectiveness on face-to-face contact and body language, vital to the richness and success of interaction. Here, electronic communication remains inadequate.

Management information systems create new posts, including the chief information officer (or MIS manager), whose roles include change agent, overseeing the design, introduction and monitoring of MIS and its surrounding technologies; and 'human link' with senior management. Unlike conventional data processing managers, who concentrate on the day-to-day tasks of their departments, MIS managers focus on planning and developing creative solutions to the organisation's changing information needs.

In the future, it seems that self-managing computers and robots will learn about the organisation and its activities, teach themselves to perform tasks, repair and update themselves as situations change and, of course, communicate with and learn from one another.

The manager's behaviour: communication and influence

One of the most influential works on this subject is Dale Carnegie's highly readable book, the title of which has become a catch phrase: *How to Win Friends and Influence People*. The book has sold more than ten million copies in dozens of languages.

Carnegie's underlying message is simple enough – how you behave towards others must be based on what you hope to achieve and how people will react to you. If your behaviour makes other people feel upset, this will more often than not limit your chances of achieving what you want to achieve in working with them. On the other hand, if your behaviour makes other people feel good, they tend to feel positive towards you and are more likely to be co-operative – and this improves your chances of achieving your goals. In the context of managing yourself, the important point here is that managers who learn to control their own behaviour understand the impact they are having on others and adapt their behaviour to get the results they want.

Such managers learn how to make other people feel good, so that they are more likely to be motivated. Achieving this is not simple, but some of the following suggestions can help to get the best from people:

- Make people feel important.
- Show that you value them and recognise their abilities.
- Be a good listener and show an interest in them.
- Show that you can see people's points of view.
- Be sympathetic to their ideas and needs.
- Give plenty of praise and encouragement.
- Be sincere and fair with everyone.

Recognition

A special reason for wanting to make people feel important and for recognising their capabilities and achievements is that it often helps in getting the most out of them – spurring them on to greater success. To achieve this, the manager must behave in such a way that the individual's confidence is built up and this means seeking opportunities for giving the person praise and recognition. Many managers are quick to criticise, but slow to congratulate people on a job well done. Yet the praise – or positive reinforcement – can produce an improvement in the individual's performance.

People will, of course, see through false praise – or flattery – but the manager should be able to find some basis, however small, for complimenting people on their work. Many employees want to be seen to be competent and want to maintain their self-esteem, so even a word of praise for a minor job can have a beneficial effect on their future performance and motivation.

Of course, there are times when subordinates have been careless or lazy – or for some other reason have done a bad job. How does the manager criticise such people? This depends on the individual – but what the manager must guard against is the negative effect that direct criticism can have on many employees. If criticism damages their self-esteem or creates bad feeling between them and the manager, the net effect of criticism is negative – and some long-term harm can be done to the relationship between manager and subordinate. In extreme cases, the manager may cause bitter resentment or even become hated for handing out criticism.

Empathy

Carnegie emphasises the importance of trying honestly to see things from other people's viewpoints. But most managers are somewhat self-centred. They are mainly interested in their own problems and achievements. The trouble is, everyone else is the same. So the manager who can break out of this mould and show a real interest in others will make a big impact. Such a manager will really try to understand people's aspirations, feelings, ideas and worries – and show that these are as important as his or her own. To show empathy with another person, the manager should pause before starting a conversation and think 'if I were the other person, what would I want to hear now?'. This requires considerable sensitivity on the part of the manager, a quality well worth developing.

Empathy involves not only trying hard to understand what another person is saying or thinking, but responding in a way which *shows* that you understand or are trying to understand. So, the many signals the manager gives to the other person – verbal and non-verbal – can be very important.

Listening

Being a good listener is an important skill, often lacking in managers and non-managers alike. In fact, most people much prefer talking to listening. The manager who can listen not only conveys a message to others that they are *worth* listening to – but also learns a lot from what they have to say. Of course, there are exceptions and managers generally haven't got time to waste on irrelevancies. But there is scope for a lot of useful listening, if the manager has the skill to do it properly and be selective about it.

Among the skills of listening are:

- Interpreting what is being said to understand its meaning (this involves 'decoding' non-verbal as well as verbal signals from the person talking).
- Giving feedback which shows you really understand what the person is saying, but without interrupting.

When the other person is being long-winded and taking up too much of the manager's time, then action is needed to curtail the listening. Here the manager must signal to the other person that the exchange must be brief and to the point.

Encouraging a long encounter

'Come in, Joan. How are you? Has Henry recovered from his operation yet? Did you enjoy your trip to France...'

Signalling a time limit

'Joan, I have an appointment at ten but I'm happy to spend ten minutes with you now, if we can solve the problem in that time.'

Assertiveness

Assertiveness has not been given much attention in management, probably because it has rarely been thought of as a problem. But in the last few years, the value of assertive behaviour has been recognised and taken more seriously. Training in assertiveness has become quite common and there are even self-help guides for those who want to assess or improve their assertiveness (see, for example, Lloyd, 1988). An insight into assertiveness shows that many managers are *aggressive* rather than *assertive* – and the two are not the same.

Aggressive managers convey an impression of superiority and often disrespect, their wants and rights being placed above those of others and therefore tending to infringe the freedom and rights of others. Aggressive people tend to stand their ground, are often inflexible and obstinate, belittling others and making them angry or humiliated. They can be sarcastic, accusatory and rude.

Compare this with assertive behaviour. Assertive managers encourage honesty and directness – and do so *by example*; they communicate a feeling of self-respect and respect for others. They try to help others achieve their needs, as well as achieving their own – creating 'win-win' situations that benefit all concerned. Assertive people seek co-operation, show tact, and are genuine, open and enthusiastic.

Less common among managers, although elements of it are often present, is non-assertive behaviour. Non-assertive managers tend to be placid and sometimes vague and obscure, imparting messages of inferiority or lack of self-confidence. Such managers can be hesitant, defensive and subtly dishonest, being at the same time disrespectful to subordinates but deferential to their seniors.

Personal skills and interaction

Construction firms are realising more and more that their managers and other employees need good personal skills to carry out their jobs effectively. This realisation has not only dawned on the construction industry; in recent years, many other industries and professions have started to give much more attention to training in this field.

For instance, the Metropolitan Police Force included in its complete policing skills programme: (1) self-awareness; (2) interpersonal skills; (3) group awareness. This means that along with the training they receive in the more 'glamorous' side of their work – driving, detective work, firearms and so on – police officers learn such

skills as how to assess their own behaviour, how to compare themselves with their peers, positive and negative aspects of verbal and non-verbal communication and how to control and change people's attitudes and behaviour, whether colleagues or the public (Mitchell, 1989).

Even very senior managers often value personal skills very highly. For instance, in a recent UK study of 45 managing directors, most of them mentioned *people skills* in one form or another as 'equally important or a very close second' to decision-making skills (Cox and Cooper, 1988). Managers in UK construction firms often rank their interpersonal skills higher than all other management skills, regardless of whether they are from a trade or technical background and irrespective of their age (Fryer, 1994b).

One reason why such skills are rated so highly is that managers realise that to get things done and to elicit co-operation from people, they have to establish rapport with them, persuade them to accept goals and motivate them. This involves creating feelings of satisfaction, approval and respect in a range of situations, such as when discussing a work problem, interviewing someone, explaining a new method, counselling or bargaining.

Establishing a good rapport is an important starting point in exercising personal skills and is achieved in a number of ways. Argyle (1983) summed up the ways in which rapport can be created:

- Adopting a warm, friendly manner; smiling; using eye-contact.
- Treating the other person as an equal.
- Creating a smooth and easy pattern of interaction.
- Finding a common interest or experience.
- Showing a keen interest in the other; listening carefully.
- Meeting the other person on his or her own ground.

Clearly, establishing good rapport with people requires skill. It involves good communication, trust and acceptance, and creating relationships in which people feel comfortable with one another. It brings into play a number of human skills which have not been taken seriously enough by most managers in the past. And these skills must mostly be practised face-to-face; not through memos and telephone calls, but through personal communication.

Effective personal communication

Even though most managers and professionals *appear* to understand the value of good communications, somehow the message often fails to get through. Managers seem clear enough that an important purpose of communication is to involve employees, so that they are committed to the business and therefore contribute effectively to its work, but little seems to be done to apply communication to make this happen.

Drennan (1989) gives an interesting case study of a large firm which wanted to

'beef up' its internal communications. This is how it did it. First, senior management redefined the firm's key goals so that they would be simple and understandable to all employees, relatively stable over the next five years and couched in such a way that every department and employee could do something to contribute to them.

Next, senior managers were asked to consider what, in practical terms, they were going to do to achieve these goals. A series of conferences were held at various levels, so that ideas and proposals about how the goals could be achieved and how to measure and communicate progress flowed back and forth among employees throughout the organisation. Each working team put together its practical programme and presented it to the next level of management for approval. The work teams set new performance targets for themselves and soon charts and graphs started to appear showing how well teams were doing.

The message is clear – if people know what they are striving for, they will largely manage themselves. But they cannot find out what they are striving for without good two-way communication and this will only happen if people – managers and other employees – want to talk to one another and know how to do so effectively.

Summary

Communication breaks down in organisations because people's interests, perceptions and viewpoints differ. People fail to see how their work affects others and their communication skills are often weak. Senior managers have the job of developing a communication network to suit the size of the firm, the projects it undertakes and the people involved.

Managers must help employees to improve their communication skills and encourage two-way communication within their groups, making time to listen to, and understand, what people say. The time will be well spent.

Informal communication channels are important but are sometimes suppressed. They must be encouraged. They supplement rather than replace formal channels, which can be inadequate on their own. However, managers must use judgement where channels are contractually prescribed.

Communication should be as direct as possible, without too many links in between the sender and the person who must act on the message. This is especially important in large organisations, where neglect of lateral relationships between people of similar rank creates problems. In construction, the site manager is largely isolated from other site managers who have similar problems and from the specialists who provide expertise. Opportunities for the exchange of ideas and information are restricted.

Good communication and willing co-operation are inseparable. Managers who stress the technical side of their jobs often fail to recognise that people may be suspicious of their motives and may misunderstand or distort what they say. Sensitivity and positive attitudes to people are vital to successful communication.

Revolutionary changes have taken place in organisational communication, with the development of the technologies associated with microelectronics and telecommunications. Information is now available to managers and other employees faster, more reliably and in larger quantities than ever before. Information now has to be systematically managed and information networks carefully designed and monitored. Communications can pass at lightning speed around and among organisations and between individuals anywhere in the world.

Group communication exercise

Attempt to observe, study, record and analyse group interaction using the quantitative analysis distribution technique. The technique records each communication act and the direction (person it was aimed at).

The communication QuAD (Quantitative Analysis and Direction) tick sheet shown in Figure 5.4 can be used in two ways. One way is to sit and observe the group, simply ticking the sheet as people speak and address others in the group, another way is to use a video camera and video record the group and complete the sheet by watching the recording. As long as the video camera is positioned so that all of the participants can be seen, the recording is much more accurate as it can be watched and reviewed to complete the sheet. Some observers may use more than one video camera, although this is not necessary if participants are seated in a horseshoe arrangement. When using a video, the validity of the observation is easy to check as more than one person can observe the interaction, allowing observations to be cross-checked between observers.

When observing the interaction in real time (without the aid of a video camera), it is very difficult to record consistently every communication act observed. However, it is still possible to catch most of the interaction in a reliable way. General rules for recording the interaction include:

- *Record the most obvious acts of interaction.* If a communication act has caught your attention as an observer, other members of the group are likely to be aware of the communication act.
- *You can only record one act at a time.* If two acts overlap, record the most obvious and influential (the one that won the floor).
- *Record systematically.* To make the observation reliable, the speed of recording must be constant. As a rule, assuming interaction is constantly taking place, give one tick per communication act at a rate of one tick per second.
- *When communication acts are coming too fast, stick to the one second rule.* This will mean that you miss some of the interaction, however, if people are active in the group other comments will be observed and the percentage distribution should, over the course of the observation, be representative of the interaction that took place.

| | Date | Communication – Quantitative Analysis and Direction (QuAD) Tick Sheet | | | | | | | | | | | | Sheet No. ____ |
|----|---------------|--|---|---|---|---|---|----------|---|---|---|---|---|-------------------|
| | No speaker | Sender | | | | | | Receiver | | | | | | Group |
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Figure 5.4 QuAD – Quantitative Analysis and Direction tick sheet.

- *If nobody speaks tick the 'No speaker' box at a rate of one tick per two seconds.* (This allows for the two ticks that are normally required in each row.)
- *Record the most obvious direction.* When people speak in a group, all members of the group have the opportunity to receive the message (in most cases). However, communication is often aimed at one of the members more than the others. This can be observed by eye contact or use of a name. If it is not clear who the message is aimed at then record the direction of the communication act as 'the group'.

A considerable amount of data can be collected in a very short time when using the QuAD sheet, so a short observation can provide a quick indication of some interaction trends that are taking place within the group.

Once the data are collected, the following information can be produced:

- Total number of group communication acts observed.
- Number of communication acts sent by each participant.
- Number of communication acts overtly directed at participant.
- Number of communication acts directed at the group.

A more detailed analysis of individuals can reveal:

- The number of times a person addresses each individual member.
- The number of times a person received a message from each individual member.
- The number of times an individual sends messages to the group or directs their communication acts towards individuals.

Through the use of the QuAD sheet the following issues can be investigated:

Group participation and:

- leadership
- friendships and alliances
- non participation or reluctant participation
- communication dominance.

Often observation sheets are criticised because they do not capture the experiences, feelings or perceptions of the group members. To make the whole exercise more interesting, members who participated in the group can be asked the following questions immediately after the discussion.

Who in the discussion do you think was most influential?

Who in the group do you think was the leader?

Which group member was least active in the group?

Whose contributions did you prefer the most?

Whose contributions did you disagree with the most?

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Can you identify the members of the group who you have strong alliances with or close friendships (these can be listed in order of strongest to weakest alliance)?

Select the questions you wish to investigate and present them to the group members in a questionnaire format. Be careful, some of the questions can be sensitive if not handled correctly.