TECHNIQUES IN COMMUNICATION
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Chapter 1: The trainer and communication
1.1. Communication
1.2. Creating the framework for a training session: the ‘SIOM’

Chapter 2: In-house communication
2.1. In-house communication
2.2. Forms of communication, communication networks and tools

Chapter 3: Teaching aids and communication
3.1. Some general points of reference
3.2. Preparing and using a slide show
3.3. Using a paper board
3.4. Using a flip chart
3.5. The metaplan technique
3.6. Integrating audiovisual aids into training sessions
3.7. Written notes
Appendix: Creating a slide show

Chapter 4: Group leadership techniques
4.1. The three functions of group leadership
4.2. Lecture method: choosing a training technique
4.3. Demonstrative method: the applied practice technique (APs)
4.4. Discovery method: choosing a leadership technique
4.5. The importance of instructions in the demonstrative and discovery methods

Chapter 5: Different types of meetings and their organisation
5.1. Holding a meeting
5.2. Different types of meetings
Chapter 6: Communication and the coaching relationship

6.1. Coaching: terms of reference
6.2. The coaching interviews
6.3. Some coaching techniques

Chapter 7: Document resources: where to find information

7.1. Information management
7.2. Major internet services
7.3. Organising an online document search

Most used abbreviations and acronyms

Bibliographical references
Chapter 1

The trainer and communication

1.1. Communication ................................................................. 6

1.2. Creating the framework for a training session: the ‘SIOM’ ................................................................. 13
1.1. Communication

1.1.1. A question of context

The particular context in which every relationship is formed is a determining factor for the nature of that relationship and how it develops.

Therefore, in public speaking – a presentation, for example – context cannot be overlooked; it is an essential consideration for the relationship between the speaker and the audience.

The main components of the notion of context:

- The institutional context, which determines the roles, the relationship between the people interacting and the ‘rules of the game’;
- The framework in which the encounter takes place, including the immediate environment, the place and the time;
- The elements specific to each culture which govern social interactions (e.g. practices, etiquette etc.);
- The nature of the relationship, which is determined by the objectives set by each person with respect to the communication situation (e.g. to inform, be informed, to convince, comfort, threaten etc.);
- Personality, and everything which makes the individual who they are, for example personal history, motivation, character, values, etc.

These constituent elements of the context influence communication to varying extents and degrees.

1.1.2. Communication: an exchange

What is communication?

We can define communication from our own particular pragmatic and relational perspective.

It involves all of the strategies implemented by an individual or a group of individuals in order to share resources and viewpoints with others.

Communication can be represented in a simplified manner as follows:
We can also say that communication strictly speaking involves a sender’s intention, which is translated into a message, interpreted by a receiver and which has an effect on that person. A message is then sent back (feedback).

Each person therefore takes turns being a sender and a receiver.

A message transmitted between the sender and the receiver goes through a number of filters at each of these points.

These filters consist of several elements (e.g. education, prejudices, personal experiences, etc.) stemming from the context. They play a special role in each person’s system of encoding/decoding and therefore in the interpretation of the message.

1.1.3. A question of position

The relationship between the speakers is defined by their communication.

Our way of communicating expresses the position we would like to assume and, correlatively, the position which we assign to the person we are communicating with. These reciprocal positions can be based on similarity or complementarity, i.e. on equality or difference.

The respective position of each person is determined according to:

- **external factors**, the status and role of each person (e.g. supplier/client, doctor/patient, police officer/general public, colleague/colleague) or his or her social identity (e.g. parent/child, man/woman);
- **internal factors** of the relationship, i.e. the subjective position which everyone assumes with respect to the other person (e.g. dominating/dominated, adviser/advised, seducer/seduced).

This determination of position may be the result of agreement (the speakers recognise the position which has been assigned to them in the communication) or of disagreement, which may lead to conflict.
1.1.4. A question of perception: the effectiveness of the communication

There are different strategies which allow a specific objective to be achieved. Different levels of intervention are possible.

We know that in order to understand the full meaning of a message, it is useful to take all components of the communication into account.

But this is not enough. We should be aware that the message is always communicated (verbally or otherwise) in a specific context and that it is encoded by the sender and decoded by the receiver. The message is therefore interpreted.

Consequently, in the event of a ‘poor’ interpretation of the message, the effect on the receiver may not correspond to the transmitter’s intention.

Three different levels in a communication situation should be identified:
- what I think (intention); what I wish to convey through my message;
- what is expressed; my message;
- what the other person perceives (effect); what the other person understands.

Example

A little boy is goes missing in the night and his father thinks that he should look for him alone, that it is too dangerous for his wife and that someone should be in the house if the little boy comes home in the meantime.

He says ‘I want you to stay here – I should go and find our son alone’. The mother understands this as meaning that that he is neglecting her as a mother who has as much of a right as he does to go and find their child.

This example illustrates the potential difference between the effect of the message on the receiver and the intention of the message – the sender’s initial objective.

Effectiveness therefore depends on the concordance between the effect and the initial intention.

Effect = Intention

This concordance is even stronger when we ensure that our intention is clarified (through goals, teaching objectives) – the intended effect – and that the content and the form of our message correspond to our intention.

1.1.5. Verbal, non-verbal and paraverbal communication

This section discusses the aspects which influence the effect of a message. We will focus on the factors which relate directly to the form of an oral presentation.
Later we will discuss the visual factors of perception which, due to their form, also influence the effect of a message.

- **Personal filters and interpretations**

A message may have a different specific meaning for each of the speakers and may cause quite different reactions. Each element of communication – whether verbal or non-verbal – may take on a different meaning depending on the people involved and the context.

Furthermore, our perception of reality is personal. Each of us may have a different perception of the same reality, and feel that the reality we perceive is THE reality.

Each person perceives reality through his or her own frame of reference, which acts as a filter. This is a subjective perception which causes specific reactions and behaviour.

Each person’s actions are based on the image he or she has of the person they are communicating with and their (subjective) perception of each other.

This representation has a considerable impact on the interpersonal relationship (cf. the notion of position), which in turn has an impact on how the speakers see each other.

It is through discussion and the ‘confrontation’ of points of view that we are able to build a collective viewpoint that is relatively close to reality.

Although communication often represents a verbal exchange, it is not limited to this aspect. In reality, communication is much broader.

- **Everything is communication**

Along with its verbal dimension, it includes:

- a **non-verbal dimension**: e.g. gestures, attitudes, visual contact, facial expressions, body language;
- a **paraverbal dimension**: e.g. tone, rhythm, timbre, inflection.

The different non-verbal and paraverbal elements of communication can perform different functions in communication (e.g. relational, regulating, expressive, supporting). In the same way as verbal aspects, they are translated and decoded by the speaker, who ascribes them a meaning.

Consequently, the meaning of a message is only complete when we consider the verbal component as well as the non-verbal and paraverbal components of communication.

**Even silence is a form of communication**: through my attitude, I am communicating that I do not want to have a dialogue; through my silence I am communicating a particular message.

Thus, we might say that it is impossible not to communicate.¹

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The way we express ourselves determines this relationship more than the content itself.

The non-verbal part of communication is called the relationship, as opposed to the content, which corresponds to the verbal elements.

1.1.6. Paraverbal factors which influence the effectiveness of the message

We will now discuss some aspects to consider in the way we address our message to an audience.

These factors are directly related to **the way we use our voice**.

Our voice has different characteristics which should be adapted to the size of the audience and the space in which we are speaking.

- **Volume**

  The volume of our voice should be loud enough to be heard by all of the people in the audience and to be pleasant for them to listen to our message.

  Its intensity should be adapted to the size of our audience as well as to the characteristics of the room we are in.

  The volume of our voice should not be uniform, and should be varied according to the emphasis placed on the information being presented.

  A microphone may be necessary. This needs to be used properly: avoid speaking too loudly, keep a distance between the microphone and your mouth, stay in the range of the microphone, adjust its height, ensure a comfortable position, etc.

- **Rhythm**

  This refers to our **speaking rate**.

  During a public presentation, the listener must be able to hear the words without needing to listen to them again. Speaking too quickly therefore detracts from the understanding of our message.

  Furthermore, speaking too quickly often conveys our nervousness about speaking in public and may cause us to lose track of our ideas. Slowing down our speaking speed allows for better comprehension of our message, as well as allowing us to cope better with the stressful situation.

  On the other hand, speaking too slowly may start to lose the listeners’ attention, making them feel weary or even irritated. Avoiding these extremes does not, however, mean keeping a uniform rhythm.
The rhythm and the punctuation of sentences should be varied, in order to break the monotony and leave time for the audience to assimilate what you are saying, and thus hold their attention.

**Tone**

The tone of a sentence has a strong influence on the meaning it is given (e.g. affirmative, interrogative, aggressive, authoritarian). The intonation used must therefore correspond to the meaning we wish to convey.

**Articulation and pronunciation**

The way we pronounce words should also be taken into consideration.

In order to be understood, the sounds which make up the words must be articulated clearly, without exaggerating.

Pronunciation varies, depending on time and place, particularly in the case of regional accents.

Having a specific accent is not a flaw. We must, however, be aware of the impact of our pronunciation on the way our words are understood, especially if our audience is made up of people from other regions.

1.1.7. **Non-verbal factors which influence the effectiveness of the message**

**Eye contact**

Eye contact involves much more than just looking at our audience. It signals the interest we have in our listeners and captures and holds their attention. This contact also allows us to see how they react to what we are saying.

If the size of the audience allows it, it is important to look at every audience member when speaking.

If there are too many people in the audience to establish individual eye contact with each of them, we must ensure that our gaze moves around the audience and focuses regularly on people in each part of the room.

**Silence**

When we speak in public, we often tend not to leave room for pauses. This is either because we are trying to say too many things in a short period of time, or because silence makes us feel uneasy and we wish to avoid it.

If it is respected, silence often has a positive function.

Before speaking, a pause can allow us to elicit the audience’s attention.

During a presentation, it can provide listeners with the necessary time to assimilate or think about the important information you have just given them, and give it emphasis.
It allows us to signal the transition between two ideas, to punctuate and space out our presentation, to emphasise an idea, and to regain our concentration, for example.

Finally, a pause before ending avoids giving listeners the impression that we are in a hurry to leave.

Silence is therefore neither empty nor useless; we should learn how to use it and to integrate it into our public speaking appropriately.

- **Gestures**

  Our gestures always express something.

  They can convey what we are trying to hide: our nervousness or shyness, for example by playing with a pen or glasses, or by pinching our chin. These gestures interfere with our presentation; they draw the audience’s attention and distract them from listening, and can quickly become irritating.

  We should avoid remaining still by leaning on a table, putting our hands in our pockets or folding our arms; this reinforces an unnatural and rigid attitude, and is detrimental to the communication of our message and its understanding.

  Conversely, gestures may reinforce or emphasise our verbal message; they provide rhythm, illustrate and accompany what we are saying, livening up the presentation.

- ** Movements**

  Moving about can bring the presentation to life.

  However, it is best not to move about constantly or to make movements which are too predictable. The former risks monopolising the audience’s attention, whereas the latter quickly becomes monotonous and boring to the audience.

  Conversely, it is also best to avoid remaining motionless, as it may give the impression that you are timid or distant speaker.

  Movement should be used to make the speech more dynamic, to punctuate it and liven it up.
1.2. Creating the framework for a training session: the ‘SIOM’

A training session should meet a number of conditions:

- **Specify the objectives and the organisation of the training session**
  - The SIOM serves as a basis for the preparation and leading of a training session. It allows the trainer to **specify what they will do together**, to structure his or her presentation and to be clear and concise for the trainees.

- **Specify the framework**

The trainer should **announce the session’s timing** (or the session if will cover several days) at the start.

The timing must be respected; any overrun should always be negotiated with the trainees.

If the trainees hardly know each other or do not know each other at all, it is essential to introduce them or to ask them to do so in order to allow the group dynamics to become established and to allow the participants to know which group they are in.

The trainer should explain why each trainee is present.

- **The SIOM**

The SIOM is a framework which **should always be used** for preparing a training session, in particular for each of the training sessions. It will serve as a basis for leading the different training phases, and as the introduction for each of the training sessions.

- **Subject of the training session**
  - This refers to the **theme** of the training session.

  *E.g. the modes of action and spraying of insecticides for rice farming*

- **Importance of the training session**
  - This refers to the **importance** of participating in the training session for the people or the group.

  *E.g. so that you can save money through using these products, with a better understanding of the conditions for the effectiveness of insecticides. Furthermore, it is important for you to know the usage precautions in order to reduce the health risks which you or others may be exposed to.*
- **Objective of the training session**

  This refers to the result to be obtained at the end of the training session.

  *E.g. know the modes of action for insecticides in rice farming; understand the usage precautions; have a good grasp of the dosing and spraying procedure for insecticides.*

- **Method**

  This refers to identifying a *series of stages* in order to reach set objectives, assigning an approximate *length* to each of the stages in order to respect the established timing, and briefly explaining the way in which the stages will be addressed.

  *Example:*
  1. *Presentation on the modes of action for rice* (20 minutes);
  2. *Presentation of the equipment* (20 minutes);
  3. *Presentation on the risks* (20 minutes);
  4. *Simulation in sub-groups on the preparation of equipment and precautions* (120 minutes);
  5. *Practical exercise in the field* (180 minutes);
Chapter 2

In-house communication

2.1. In-house communication ................................................................. 18

2.2. Forms of communication, communication networks and tools ...................... 26
2.1. In-house communication

2.1.1. Introduction

In organisations, a distinction is usually made between internal communication and external communication.

This distinction mainly concerns the objectives and the target audience of the communication.

Internal communication is aimed at company members or the subcontractors who are part of the organisation’s operations. Its objectives are to exchange information with them, motivate them, develop their sense of belonging and encourage dialogue.

External communication is aimed at the environment surrounding the company (suppliers, clients, the State, financial and non-financial institutions and other external partners). Its objectives are to exchange information with the outside world, promote the company, conquer the market and secure customer loyalty.

Having made this distinction, we will now focus on internal communication.

2.1.2. The functions of internal communication

The basic function of internal communication is to encourage the exchange of information in order to support company objectives such as obtaining certification, introducing changes in the production process etc.

Thus, internal communication cannot be dissociated from the management of the organisation. Its aim is to make a strategy, a plan of action, procedures or operating modes understood by the members of the company, i.e. its stakeholders.

In order for communication to be effective, it is not enough for messages to be communicated to the right people and be understood. The recipient of the message must assimilate its meaning and the issues associated with it, thus contributing to the company’s development.

In-house communication is a fundamental part of management which helps to further the different aspects of an organisation’s operations:¹

- Its structure (division and coordination of work)
- Its procedures (rules, methods and tools)
- Its culture (values, behaviour, image and belonging)

¹ For a detailed presentation, see Manual 8 – Part 1 – Chapter 1 – Paragraph 1.4.
Communication therefore fulfills different functions according to the specific objectives and the nature of the information:

- **a normative function**: related to adherence to regulations, legislation, quality standards or the requirements of a frame of reference;
- **a coordinating function**: related to the implementation of procedures, operating modes, working methods, production programmes or action plans and the distribution of responsibilities between hierarchical levels;
- **a motivating function**: related to how individual and organisational objectives are aligned, as well as to the processes of mobilisation and integration through information about the internal context (life at the company, the associated issues) and the external context (projects, clients, environment etc.).

Furthermore, the size of an organisation has an impact on:

- the form of communications;
- the content of messages;
- the way in which they circulate;
- their effectiveness.

Moreover, internal communication plays a major role in the effectiveness of organisational processes. It tends to modify or re-align the behaviour of an individual or group in order to direct them towards the achievement of certain objectives, such as adopting good practice, using a new tool, documenting an activity etc.

Internal communication also aims to ensure there is a suitable distribution of available information and contributes to the effectiveness of the decision-making system and the fundamental processes within the company. It thus contributes to specifying 'who does what' and 'who is responsible for what'.

In order to devise an effective communication strategy within the company, a communication plan needs to be established which supports the communication actions to be employed, depending on objectives and with the ultimate aim of overall consistency throughout the company.

### 2.1.3. The communication plan

The internal communication strategy must be defined in order to support the organisation's overall strategy.

The communication plan is therefore a tool for managing communication. It formalises what you wishes to communicate, to whom, when, how and for what result.

The communication plan must be based on a clarification of the objective you wish to achieve through communication. The following must therefore be identified:

- **who is communicating**: the sender;
- **what you wish to communicate**: the message;
- **who the message is intended for**: the target audience;
- **the means of communication**: the mechanism and the media;
- **the results sought**: the objectives and the expected outcomes.
The communication plan provides a structured overview of communication actions to facilitate their preparation and use within the organisation, taking financial, human and material resources into account. It helps ensure that communication actions are synchronised between themselves as well as with other actions planned within the company (training actions, seasonal movements of staff, for example).

By way of example, on the following page you will find a matrix which can be used to create a communication plan.
<table>
<thead>
<tr>
<th>Action</th>
<th>Date</th>
<th>Frequency</th>
<th>Target audience</th>
<th>Message</th>
<th>Medium</th>
<th>Person responsible</th>
<th>Logistics</th>
<th>Vis. aids</th>
<th>Doc code</th>
<th>Comments</th>
</tr>
</thead>
</table>

- **Communication plan**
The different sections of the ‘communication plan’ matrix show the essential components of each communication action.

☐ **Date**

This involves identifying *when* the action should take place. This allows a realistic action plan to be determined while respecting a logical chronology. For example, an action can only take place if a certain prerequisite is met. This allows any problems with timing and resources between the different actions to be identified, such as planning two information meetings for the same day, or organising a meeting before a training session.

☐ **Frequency**

Certain actions can be repeated. It can be useful to specify their frequency (i.e. once a month, the first Monday of the month etc.).

☐ **Target audience**

This involves clearly identifying the people or the categories of people you wish to reach through communication. It can be useful to identify the parties directly and indirectly affected in order to define the precise target audience for each action.

For example, a notice addressed directly to workers may require information from the supervisors. This therefore involves deciding whether two distinct and specific communication actions should be planned or whether the same action should be addressed to both parties concerned, simultaneously or separately.

For example, should there be an information meeting for the workers and their supervisor together, or a meeting for the workers and a letter for the supervisors, or even a meeting for the workers and another for the supervisors?

In order to adapt the actions to each target group as best as possible, it can be useful to subdivide them into sub-groups according to:

- their homogeneity (e.g. young people, women, illiterate people etc.);
- their location (e.g. same site or different sites);
- their accessibility (e.g. in the offices, in the station, in the fields);
- their level of knowledge (e.g. level of awareness, trained or untrained).

☐ **Message**

This involves identifying:

- the theme of the communication;
- the subject which is to be communicated;
- the key elements of the message to be communicated.

☐ **Medium**

This involves specifying the medium to be used for communication: e.g. a poster, a sign, a letter, an electronic newsletter, an information meeting or a brochure.

☐ **Person responsible**

The person responsible for each action is identified; it may be the person who devised the plan or it can be another person.
Visual aids

This involves specifying the visual aid(s) which should be available in order to carry out an action. For example, they could include a poster, a pictogram, a slide show, an excerpt from a text, a reference document etc.

Doc code

It may be useful to include a specific section to list the documents (visual aids or others) related to the action. This section could be completed later, once the documents have been created or archived. For example, the title and the location of the slide show or references to a specific regulation.

Logistics

Logistical requirements must be listed: e.g. booking a room, setting up projection material or booking a computer.

For larger-scale communication actions, it may be useful to complete a more detailed sheet for each action, stating the objective, the budget, the tasks to be carried out etc.

In addition to the communication plan, it is useful to write a summary document in order to visualise the actions schedule.

Based on each identified target audience, the action provided for in the plan will be transferred to a timeline.

The following page presents an example visualisation of a schedule.
This visual aid is a useful tool for planning and managing in order to see the overall coherence of actions and their link with the other actions planned within the company, according to respective schedules such as training actions, seasonal events etc.

Generally, the internal communication plan is prepared yearly. However, it must be updated regularly and adapted according to the evolving context.

There is no single action that is more effective than another in absolute terms; each action is effective with respect to the objectives, the audience, the specific context etc. Each planned action is therefore chosen according to these aspects.

Internal communication follows the fundamental principles of human communication. Thus, the preparation of a communication plan should take the different forms and characteristics of the communication into consideration in order to master them and integrate them into the preparation of an effective communication strategy.
2.2. Forms of communication, communication networks and tools

2.2.1. The different forms of internal communication

Three different forms of communication can be identified:

- **Interpersonal communication**
  
  This involves an exchange between **two people** e.g. a production manager discusses activities with an area manager or an applicator.

![Interpersonal communication diagram](image)

- **Group communication**
  
  This involves an exchange with **several people** or with a category of people. E.g. the QTM presents new legislation to the production managers.

![Group communication diagram](image)
Mass communication

This involves an exchange between one person and the general public e.g. the general manager presents the company strategy to the entire staff.

2.2.2. The characteristics of internal communication

In companies, internal communication concerns the exchange of a large number of messages and differs according to:
- its nature (formal or informal),
- its flow (upward, downward, lateral or diagonal),
- its direction (unidirectional or bidirectional).

Communication therefore has different characteristics:

- Formal and informal communication

Communication is formal when it is official, codified, regulated and expected, if not planned, and makes use of hierarchy.

It is informal when it occurs outside the regulatory frameworks imposed by the organisation, taking place based on affinities and encounters.

A manager may announce a promotion to an employee during an informal meeting, while this promotion will be subject to a public presentation or will be confirmed in an official written document.

- Upward and downward communication

This distinction refers to a traditional positioning of the different levels of hierarchy in the organisation.

Downward communication originates at the top: it is top-down communication.
Upward communication originates at the bottom: it is *bottom-up* communication.

- **Horizontal and diagonal communication**

  Communication is said to be **horizontal** when it takes place between people at the same hierarchical level: workers, area managers etc.

  **Diagonal** communication therefore concerns contact between people at different hierarchical levels: e.g. between production managers and applicators, or between station managers and sorters.

  In small-scale organisations, these types of communication take place more spontaneously than in large organisations, where they often require a formal framework. These forms of communication ensure better coordination between the different elements of a structure and generally accelerate the decision-making process. Finally, this type of communication allows the growing complexity of problems facing the organisation to be taken into consideration, and often leads to solutions.

- **Unidirectional and bidirectional communication**

  **Unidirectional** communication is one-way communication. The information is simply conveyed to the recipient (e.g. an information meeting).

  **Bidirectional** communication is characterised by its principle of reciprocity: it leaves room for feedback. Information is conveyed and more information is conveyed in return (e.g. a discussion meeting).

2.2.3. Communication networks

Communication takes place through its **active network**. A communication network is a **structure** made up of a number of people and the conventions surrounding the direction of the communication.

A distinction can be drawn between several major types of communication network. Some of them favour the existence of a leader, while others do not allow for it. Some of them favour decision-making because they permit the free circulation of information or accelerate the process. Finally, certain types of network create or increase satisfaction within the organisation.

Thus, the type of network depends on different variables such as the objectives of the group, the status and characteristics of its members, as well as agreements and physical layout.

- **Centralised networks**

  1. **The cross**

     Communication takes place through a central person who receives and sends the information to the other members of the network. They may not communicate directly among themselves. They must go through the person at the centre of the network who may centralise all of the information and act as leader.
Classic organisations – characterised by a rigid structure and where respect for hierarchy is an important value – often have this type of network. This is effective for rapid decision-making without seeking unanimity and when tasks are simple and repetitive (e.g. relationships between managers and subordinates).

2. The chain

The information is conveyed in a linear fashion from one person to another, without any communication taking place between them. This type of network can lead to distortion of messages (hearing things through the grapevine), and all the more so where there is a high number of members (e.g. military-type relations).

3. The ‘y’

This is a variant of the chain network. A member of the chain is in contact with a non-member of the chain (cf. manager - expert consultant relations).
Decentralised networks

1. The circle

Each member of the network can initiate the communication. It is difficult to exercise leadership as each person has contact only with certain members.

2. The spider web

Information circulates in all directions and between all of the people. This type of network encourages the participation of its members. However, it hinders decision-
making, which requires discussion between people. Cf. relations between the members of a working group.

When a choice has to be made, the type of communication (nature, network, etc.) depends on the situation, the needs to be met and the objectives:

- is there a desire for rapidity?
- is there a need to respect the hierarchical structure?
- is there a desire to involve a certain category in decision-making?
- is there a desire to inform, be informed etc.?

Of the different types of network presented, whichever allows for the most effective communication in a given situation is the most suitable.

2.2.4. Internal communication tools

In-house communication uses different means and a variety of aids which follow the same processes as above.

Generally, a distinction is made between four modes of communication:

1. **Verbal communication**: interview, meeting, field visit, telephone, etc.
2. **Written and/or visual communication**: written note, poster, sign, report, in-house newsletter, newsletter, fax, etc.
3. **Audiovisual communication**: slide show, video, etc.
4. **Electronic communication**: email, electronic newsletter, intranet, etc.
Each mode of communication has its advantages and disadvantages. Choosing one depends on the objective, the material and financial resources and the target audience.

The communication of a message can take place via different means. A message (i.e. what you wish to communicate) should be presented according to the means used, the audience it is addressed to and its context.

Several studies have shown that we remember approximately:
- 10% of what we read;
- 20% of what we hear;
- 30% of what we see;
- 50% of what we see and hear at the same time.

On the other hand, we remember:
- 80% of what we say;
- 90% of what we say while doing something related to what we are involved in.

### 2.2.5. Barriers to internal communication

Like all forms of communication, in-house communication faces certain barriers. These can be of different types:

1. **Physical (mechanical)**

   These obstacles are related to the mode of transmission or to the message.
   - the **medium**: the means used to convey the information are not suitable for the message, its content, its objectives or the target audience (content, objective);
   - the **code**: the language used to convey the message is not suitable for the recipient(s). The choice of language involves two factors: the nature of the language (linguistic, graphic, iconic etc.) and its register (technical terms, popularisation etc.). It must also take the recipients’ symbolic universe into consideration;
   - **noise**: noise (in the communicational sense) disrupts the transmission of a message (simultaneous messages, incomplete message etc.). The elimination of these noises or at least their reduction should lead to an improvement in communication;
   - the **message**: there are important requirements in order for a message to be fully understood: clarity, precision, conciseness and structure. Without these, the quality of communication can be poor.

2. **Psychological (interaction)**

   This involves barriers in the communication relationship itself, i.e. on the sender’s or the receiver(s)’s side. For example, on the **sender’s** side this could be:
   - the withholding of information (intentionally or unintentionally);
   - the sender’s emotional state;
   - prejudices.
And on the receiver’s side:
- hearing without listening;
- the receiver’s emotional state;
- distraction;
- prejudices;
- the desire to speak or to get their point across;
- lack of interest in what is being said;
- the phenomenon of selective perception.

When it comes to interpersonal communication, the specific characteristics of verbal and non-verbal communication need to be borne in mind (see chapter 1 on this subject).

3. Contextual

This involves barriers related to the context and the climate in which the exchanges take place. The context is not always favourable to quality communication: the existence of tensions, conflict, rumours, etc., is a barrier.

Furthermore, the place and the time (whether chosen or not) for the communication are not always appropriate.

2.2.6. Evaluating internal communication

Communication within the company must be subject to an evaluation or communication audit before and after communication actions.

**Beforehand:** this involves identifying what already exists, what works, any barriers and forces at play, and then uses this diagnostic as a basis to devise the communication actions to be integrated into and implemented in the communication plan.

**Afterwards:** this involves evaluating the effectiveness and suitability of communication actions. For example: Have the objectives been achieved? How effectively? At what cost? What improvements can be made? What should be avoided or stopped?

This evaluation may take different forms and may be based on audit techniques and tools such as questionnaires, interviews, means analysis etc. The results of the evaluation must therefore enable relevant information to be available in order to improve in-house communication.

The **questions to be evaluated** are:

1. Which functions should internal communication fulfil?
   - a normative function?
   - a coordinating function?
   - a motivating function?

2. Is there a communication plan? Have we identified:
   - who communicates?
   - what is to be communicated?
3. Is the internal communication planned? Has the timeline been defined? Does a visualisation of the schedule exist?
   - Dates?
   - Frequency?
   - Target audience(s)?
   - Message(s)?
   - Medium?
   - People responsible?
   - Visual aids?
   - Document code?
   - Logistics?

4. Are the different forms of internal communication used?
   - Interpersonal communication?
   - Group communication?
   - Mass communication?

5. What are the characteristics of internal communication?
   - Is formal communication being used or is informal communication the predominant method?
   - Does upward and downward communication exist?
   - Is horizontal and diagonal communication possible?
   - Does unidirectional and bidirectional communication exist?

6. What are the communication networks and what effects do they have?
   - Are the networks centralised or decentralised?
   - Are the objectives defined?
     - is there a desire for rapidity?
     - is there a need to respect the hierarchical structure?
     - is there a desire to involve a certain category in decision-making?
     - is there a desire to inform, be informed etc.?

7. What are the internal communication tools? What effects do they have?
   - What are the verbal communication tools?
   - What are the written and/or visual communication tools?
   - What are the audiovisual communication tools?
   - What are the electronic communication tools?

8. What are the barriers to the development of internal communication?
   - Physical?
   - Psychological?
   - Contextual?
Personal notes
Chapter 3

Teaching aids and communication

3.1. Some general points of reference ................................................................. 38
3.2. Preparing and using a slide show ................................................................. 41
3.3. Using a paper board .................................................................................... 43
3.4. Using a flip chart ........................................................................................ 44
3.5. The metaplan technique ............................................................................. 45
3.6. Integrating audiovisual aids into training sessions ................................. 47
3.7. Written notes .............................................................................................. 48
Appendix: Creating a slide show .................................................................... 49
3.1. Some general points of reference

The creation of a teaching aid\(^1\) must incorporate elements of perception which will directly influence the effect produced by a graphic representation on the recipient of the communication.

This chapter will briefly discuss elements of Gestalt theory and will provide some guidance regarding the types of teaching aid you will need to create.

3.1.1. Gestalt theory\(^2\)

Research conducted by psychologists on vision and form has influenced graphic art, which is why it is relevant to this chapter.

Gestalt theory asserts that images impose their structure on the person looking at them.

The chosen forms should not be seen as neutral, inasmuch as they generate a number of implicit effects and may affect the quality of communication by introducing *noise*.

In this approach, four main aspects are at play in perception:

1. **The perception of a form is global.**
   The different parts of an image are connected and are subject to all of these elements as a whole.
   The application of this in typography results in concrete applications, as it signifies that a word is a whole which is more than the sum of its parts (e.g. UPPER CASE and lower case).

2. **The field of perception is broken down into form and background.**
   The form is separate from the background and is accentuated. The nature of the background can influence the figure and cause perceptual illusions.

3. **The form creates the overall perception.**
   This overall perception leads us to fill in the ‘gaps’ of a form. For example, we mentally add any missing lines to a figure to make a face.

4. **The impact of a shape follows a number of laws.**
   Of several forms, there is always one which will capture a person’s attention; this form has a high impact on the person. Therefore, in an image comprising several forms, a person will focus his or her attention on one form over the others.

---

\(^1\) Teaching aid: tool used by the trainer to help him or her in the creation and preparation of teaching activities and their implementation, or by the trainee to help him or her in the learning process and to facilitate the assimilation of content.

\(^2\) Gestalt theory: Gestalt theory was developed by psychoanalyst Fritz Perls in the 1950s and 1960s, and is a global approach to the individual which takes into consideration the five dimensions of being: physical, emotional, mental, social and spiritual. It is based on learning the ‘here and now’.
Research indicates that a number of principles endow a form with impact:

- **Smallness principle**
  A small form stands out better on a large background.

- **Regularity and symmetry principle**
  A good form has a regular and symmetrical distribution of its elements.

- **Differentiation principle**
  A form with an original structure has more impact.

- **Contour principle**
  A form with a contour is easier to remember.

- **Simplicity principle**
  A simple form stands out.

**Note**

The direction in which a visual aid is read influences perception. For example, for English and French-speaking readers, a poster is read from left to right and from top to bottom.

In addition to the influence on perception, the challenge is also to influence memorisation (cf. impact). It is easier to remember information if a person reads an image.

It is also for these reasons that it is important to induce a direction in the reading of an image and in its perception. Just like in a sentence where the order of words has a particular importance, the position of graphic elements must be well thought-out in an image.

### 3.1.2. Graphic signs and text

The choice of font and font size, for example, should be considered as carefully as the choice of an image or a graphic format. Just like an image or an illustration, text should be seen as an important element in the participants’ perception of the message.

We are referring here to the ‘image of the word’ (signifier), which should be distinguished from the linguistic content (signified).
Each type of character can be analysed through the impression it gives and can be ascribed a specific use:

<table>
<thead>
<tr>
<th>Name</th>
<th>Impression</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sans-serif (e.g. Arial, Lucida, Cent Gothic)</td>
<td>Strength; precision; separation from the background</td>
<td>Title&lt;br&gt;News update&lt;br&gt;Scientific and technical presentation</td>
</tr>
<tr>
<td>Roman (e.g. Times, Goudy Old style)</td>
<td>Tradition&lt;br&gt;Refinement&lt;br&gt;Softness, perhaps even weakness</td>
<td>Body text&lt;br&gt;(e.g. magazines)&lt;br&gt;Classicism: in-depth and artistic subjects</td>
</tr>
<tr>
<td>Cursive (e.g. Brush, freestyle)</td>
<td>Handwritten&lt;br&gt;Movement&lt;br&gt;Freshness&lt;br&gt;Spontaneity&lt;br&gt;Nonconformism</td>
<td>Word = image&lt;br&gt;Logo&lt;br&gt;Title/slogan</td>
</tr>
</tbody>
</table>
3.2. Preparing and using a slide show

3.2.1. Why use this visual aid?

The advantages of this aid are primarily:

- Optimum quality of the visual presentation;
- The ability to integrate various types of illustrations easily (drawings, photos, graphs, videos, sounds, etc.).

This aid enables a large amount of information to be displayed quickly and the transition time between slides to be reduced, which allows for a faster pace during a presentation.

Its alternate use with a paper board and question/answer sessions further facilitates the memorisation and comprehension of a message.

It allows us to benefit from the technical possibilities offered by computers (gradual discovery of information without too much manipulation, graphics, etc.).

Some of the distinctive features of this type of visual aid include:

- It is relatively expensive compared with a paper board. In addition to the video projector, a computer is required. The logistics involved are therefore more complex.
- Once the slide show has been created, it is difficult to introduce any direct changes during the presentation. The pace of the presentation is determined by the succession of slides.
- It requires greater technical skills than the other visual aids.
- Beware of the ‘cinema effect’. A slide show does not do the work for you, and the dynamics it creates lend themselves above all to a visual perception of the presentation and a faster pace. There is therefore the risk that participants will become passive spectators.

This disadvantage can be offset by creating visually-appealing slides.

3.2.2. How to use this visual aid

- Add a title to the slides.
- Choose a slide show model whose background colour will be suited to the lighting in the room where the presentation will take place.
- Keep it simple.
- Maintain uniformity between the slides. Avoid changing the colour of the background for each slide.
- Use colour and font (no more than two per slide) to add emphasis.
- Choose a font size of at least 20.
- There should ideally be only one theme per slide, one idea per line and six lines of eight words, i.e. no more than 50 words per slide at the very most.
Insert an image or an illustration every so often to liven up the presentation. Beware of overloading slides and the cinema effect.

Take the time to comment on the illustrations.

Avoid using too many animation or transition effects. They can quickly become irritating for the audience. And above all pay attention to pace if the slide show is automatic.

Minimise the use of sound effects to ‘wake up participants’. They are often seen as childish.

Check that the equipment is working properly and is available.

Note
The annex contains a brief ‘manual’ for creating a slide show using Word and PowerPoint.

PowerPoint is used very often in trainer training and group training, when subjects are being introduced and a large amount of information is being presented. It should not be the only visual aid used during a training session (Training in Papua New Guinea - Photo B. Schiffers).
3.3. Using a paper board

### 3.3.1. Why use this visual aid?

- A written plan and notes to hand throughout session.
- Written questions to encourage the audience to reflect.
- Writing down the information gathered.
- Writing down the questions asked in order to respond to them later.
- Explaining a comment or a specific point.
- Coming back to what was said earlier.
- Preparing a summary.
- Keeping written notes to create a record.
- Highlighting key points.
- Illustrating the presentation with a diagram or a drawing.

### 3.3.2. How to use this visual aid

- Write legibly.
- Write standing next to the board and not in front of it.
- Comment on what is being written by talking to the participants and not to the board.
- Use neutral and visible colours and alternate between colours to emphasise an important point.
- If there are two boards, use them alternately.
- Use squared sheets if you are going to draw diagrams.
- Avoid overloading the sheet.
- Try to write things down gradually as you go along.
- Display the sheets on the wall if the information needs to remain visible.
3.4. Using a flip chart

3.4.1. Features

We are presenting this as a specific visual aid although this term is also used as a synonym of paper board.

It refers to pages (e.g. paper board sheets) attached together and sometimes coated with plastic. Their distinctive feature is that they are prepared beforehand.

They are used to present a series of images, posters or signs.

3.4.2. Why use this visual aid?

It has the advantage of being reusable and easily transportable. It allows you:

- To focus attention.
- To illustrate a presentation.
- To return to what has been said earlier.
- To illustrate content.
- To support an argument.
- To display diagrams.
- To present the plan for a presentation.
- As an aid during a demonstration.
- To present or review key points.
- To adapt to the logistical conditions of the presentation (e.g. lack of electricity, outdoor presentation).

3.4.3. How to use this visual aid

- Write down the main ideas of the presentation (e.g. key words, acronyms, symbols) before the presentation.
- Avoid overloading the sheets with information.
- Write clearly with letters that are large enough for the whole group to read.
- Use different colours to break down information and to emphasise certain elements.
- Apply the same presentation rules as those for the overhead projector.
- Favour large-format, white or coloured visual aids.
3.5. The metaplan technique

3.5.1. What is a ‘metaplan’?

A metaplan is a board used to organise ideas. It allows the whole group to see the result of work done together.

Cards of different sizes, shapes and colours are pinned to it and can be moved about and modified according to how the work develops.

In addition to being easy to use, this tool is also adaptable. The same material can be used as a diagnostic tool (e.g. to analyse a problem), a creative tool (e.g. to search for a solution) or a planning tool.

3.5.2. Why use this visual aid?

► Allow a group to produce as many ideas as possible.
► Group these ideas according to theme (and possibly organise them into a hierarchy).
► Come up with solutions and define concrete plans of action.
► Advantages linked to the visualisation of the discussion:
  - this method limits the risk of ‘going round in circles’; it avoids repeating ideas and arguments which become visible to everybody once they are written down;
  - it helps to accumulate ideas. By not having to memorise, the members of the group are available to follow the discussion actively. Effective visualisation increases capacity to absorb information;
  - visualisation reduces misunderstandings and lack of understanding. By clarifying problems and questions, it facilitates understanding and the unification of group members;
  - the systematic use of visualisation facilitates increased interaction. Each person writes his or her ideas on cards fixed to large display boards.
► Advantages for encouraging everyone to participate in the discussion:
  - lots of people can express their opinion at the same time. Everybody is equal;
  - everybody’s answers are attributed to the group as a whole: this method lends itself to creating a proactive team spirit;
    - the risks of ‘following blindly’ an opinion leader are avoided;
    - as responses are anonymous, mental blocks are also avoided.
Advantages for the method of leading the discussion:
- answers which are not relevant to the subject are displayed but can be set aside in order to be discussed later, without being forgotten about;
- the grouping of responses according to theme allows the leader to direct the session without manipulating the group;
- the ‘physical’ aspect of the approach prevents opinion leaders from taking over and positions the group leader as ‘time keeper’ of the session;
- the review process involves a photograph being taken of the boards: the group leader cannot be accused of giving an inaccurate account.

Note
The logistics are complex; the room should not be too small; the boards must be set up before the session; there must be enough time to glue the cards and put the boards away; there should be a room to store them.
It is a tool for a specific type of highly participative group activity.

3.5.3. How to use this visual aid
- The metaplan can be used ‘out of the box’: the questions must be prepared beforehand and the number of boards and cards must be planned.
- Participants must be asked to write clearly.
- One card = one idea.
- Write the statement or question on a longer card and place it on the board at the beginning of the session. It should be written in large letters so that each participant can see it.
- During the preparation of the session, it is useful to plan additional or follow-up questions to help with the information gathering if it proves to be difficult.
- In order to facilitate the structuring of ideas, it may be beneficial to organise them as a diagram during the preparation of the session if the contents allow this. It is then easier to classify participants’ ideas on the board.
- Use cards of different colours, sizes and shapes to structure ideas (e.g. if the purpose of the metaplan is to list the advantages and disadvantages of a procedure, use green cards for the advantages and red cards for the disadvantages).
3.6. Integrating audiovisual aids into training sessions

3.6.1. Why use these aids?

- To promote experiential, inclusive learning.
- To encourage discussion.
- To illustrate facts or opinions in an appealing and entertaining way.
- To apply the training to real-life situations.

3.6.2. How to use these aids

- Have a minimum amount of expertise in the audiovisual equipment used.
- Check that the audiovisual equipment is working properly.
- Ensure that all of the participants can see the screen.
- Adjust the lighting in the room.
- Ideally, use an image projector with a large screen rather than a television connected to a DVD player.
- Adjust the sound to the size of the audience and the room.
- Limit the projection time to 30 minutes.
- Use the document by commenting on it and/or by encouraging reaction from participants.
Chapter 3
Teaching aids and communication

3.7. Written notes

Here we are referring to the use of written guidelines (for exercises), guides, brochures, any written notes and, in particular, the PIP training manuals.

The training aids and teaching tools created by the PIP are presented in manual 8 on training.

3.7.1. Why use a written visual aid?

- To introduce a subject;
- To enable a review or deeper exploration of an aspect of the training session;
- To stimulate debate;
- To legitimize content: it bears the mark of ‘authority’;
- To materialise the contents of the training session;
- To provide information which complements an oral presentation;
- To act as a point of reference after the training session;
- To allow participants to digest the content at their own pace;
- To communicate the same content to participants.

3.7.2. How to use this visual aid

- Choose when to distribute it: before? during? afterwards?
- Clearly specify the title, author, year and possibly the publisher;
- Adapt it to the subject and the audience;
- Ensure it is concise and covers the essential points;
- Choose the distribution pace: all or part of the document?
- Possibly provide a space for personal notes.
Appendix: Creating a slide show

A.1. From the main menu in Word
The Outline mode allows you to create a tree structure. Each title corresponds to a new slide. The subtitles and items will generate a text area.

In Outline mode, the arrows allow you to manage the level in the tree structure of each phrase.
• You can then make a subtitle level into a title level.

• Remember that the amount of information displayed should be kept to a minimum (1 slide = 1 theme; 1 idea per line; six lines of eight words = maximum 50 words).

This is why we should not use more than 3 levels in the tree structure.

Furthermore, having too many levels makes it difficult to memorise the message: the links between the different elements presented are more difficult to establish.

• Once your outline has been established, click on ‘File’ in the main menu.
A.2. From the main menu in PowerPoint

Standardise the page layout:

- Click on the 'Format' menu and choose 'Slide Design'.
A menu window opens on the right of the screen, leaving the slides visible. Choose and apply the desired design in order to standardise all of your slides automatically.

You can also apply a format which you have defined yourself. After clicking on ‘Browse’ (at the bottom of the window you have just opened), choose the file you have created and apply it to the new PowerPoint presentation which you would like to format.
Set the animation:

- Click on the ‘Slide Show’ menu and choose ‘Custom Animation’.

A window opens on the right of the screen. The first action is to select the elements which will be used in the animation. To do so, simply click on ‘Add effect’ and choose the desired effect. Avoid over doing it (the title, for example, is usually presented without an effect). Note: you can only choose one effect per text area.
The elements selected for an effect are now displayed in the window. You will also notice that the different points of the text area are given a number (in this case 1). This number represents the order in which the elements will be displayed during the slide show.
You now have the option of modifying the display order of the elements as well as their respective animation. To do this, first make all of the elements visible in the window by clicking on the little drop-down arrow under the only element shown in the window.

By clicking on each element and the drop-down arrow (to the right of the element), you may decide to make the element start at the same time as the previous one or by clicking. If you opt for the latter, you can then modify the display order of the elements by dragging and dropping the element into the desired location. You will notice that the numbers next to the elements on the slide change.
You can modify the effect of each element by clicking on 'Modify effect' at the top of the window.

Additional effect options are available by clicking on 'Effect options', in the dropdown menu of each element.
An interesting option in this new window is the possibility of having the elements blur once they have appeared. To apply this option, click on the drop-down menu of the tab 'After animation' and choose the colour of the element following the appearance of the next element.

This has the effect of reducing the amount of information displayed, which enables better synchronisation of the oral presentation and the reading of the slide by the participant.
By focusing attention in this way, you are making it easier for the message to be memorised.

Title 1

• Subtitle
  – Item 1
  – Item 2
  – Item 3
Chapter 4

Group leadership techniques

4.1. The three functions of group leadership ............................................................ 62
4.2. Lecture method: choosing a training technique .................................................. 64
4.3. Demonstrative method: the applied practice technique (APs) ............................ 77
4.4. Discovery method: choosing a leadership technique ........................................... 80
4.5. The importance of instructions in the demonstrative and discovery methods ....... 91
4.1. The three functions of group leadership

Group leadership must incorporate three functions:

1. production
2. facilitation
3. regulation

The leader must ensure these three functions are implemented at the right moment.

4.1.1. Production

This function corresponds to the fact that a result must be produced and a solution or elements of a solution must be found. It involves the development of a strategy which enables the set objectives to be achieved.

Production concerns everything directly involved in carrying out the group’s task.

4.1.2. Facilitation

This function corresponds to everything which must be done in order to achieve maximum production. It refers essentially to the methods used, e.g. supporting the group
when faced with a problem, identifying a work plan, finding a new approach to overcome a problem etc.

**Facilitation** is the implementation of resources in order to reach the defined goal. It ensures the most appropriate pooling of the participants’ resources and resolves problems which may arise in this pooling.

**Facilitation also consists of organising and clarifying group work.**

**Organising, i.e. specifically:**

- Helping to define objectives or problems;
- Ensuring that everybody is able to follow the discussion;
- Refocusing on the subject when there is a digression;
- Proposing guidelines;
- Suggesting a work plan;
- Using and encouraging the use of aids (board, audiovisual material etc.);
- Encouraging the search for new solutions;
- Asking for information or opinions;
- Taking notes, preparing a report or having one drafted;
- Proposing an outline;
- Keeping the group on track for the allotted deadline.

**Clarifying, i.e. specifically:**

- Providing a definition of words used;
- Explaining the meaning of a question;
- Ensuring that everybody understands what is being said;
- Explaining or reformulating what has just been said;
- Summing up;
- Summarising what has been said.

**4.1.3. Regulation**

This function concerns the relations between participants. It aims to keep the group united in a relaxed atmosphere, and to avoid or resolve conflicts.

It involves in particular:

- Urging others to be dynamic;
- Getting the group to identify the reason for any uneasiness;
- Getting the group to comprehend the reasons behind any conflict;
- Changing the subject (cracking jokes, postponing etc.);
- Encouraging compromise;
- Providing encouragement;
- Showing empathy.
4.2. Lecture method: choosing a training technique

Comment: following the presentation of each training technique, you will find sheets for preparing and leading each of these techniques. This applies to each of the methods discussed in this chapter.

4.2.1. The presentation

The presentation is an indispensable method used in public speaking.

Speaking in public is to:

- communicate
  - something
  - to someone
  - in a specific context

This special type of communication therefore based on two phases:
  - preparation
  - presentation

Each phase integrates in a crosswise fashion with the message (something) and the audience (to someone).

Public speaking requires preparation.
In order to prepare, a series of steps need to be followed.
Define the objective

This involves outlining the result to be achieved through what we say (the goal). The general objective can be broken down into sub-objectives. They must be specific, attainable and concrete, and written in a positive way by using action verbs.

Choose your angle and define the content

The information to be conveyed is defined depending on the point of view we want to discuss, i.e. the aspect of the subject we want to highlight. The angle is chosen based on the objective as well as according to the audience. Choosing an angle involves defining the content of our talk.

Determine the key message

The content of the presentation is always targeted. It is determined by the goal (what we wish to achieve), as well as by the audience (the people we will speak to). It is therefore important to define the characteristics of this specific audience in order to adapt the content of our speech. For example: Is the group homogeneous? What is the group size? What is their level of knowledge of the subject being discussed?).

The key message we wish to convey to the audience must allow us to express our ideas and organise the content of our speech.

Organise the content

A presentation is structured in three distinct parts: the introduction, the development and the conclusion. Each of them has specific requirements and issues which must be respected when preparing the message, in order to bear them in mind during the presentation to the audience.

The time allotted must also be integrated into the preparation, as well as the time devoted to each point.

Organise the content of the presentation:

A. The introduction

Introduce ourselves:
- Explain our position and specify the overall context of our speech.

Begin with a ‘hook’
Objectives:
- Establish contact with the audience;
- Capture their attention;
- Arouse curiosity; stimulate reflection.

Content:
- State the key message.

Present the objectives, the structure and the timing
Objectives:
  - Direct the audience;
  - Provide a framework.

Content:
  - Provide an overview of the different themes discussed.

B. The development

Objectives:
  - Keep the audience’s attention;
  - Be specific;
  - Elicit interaction with the audience;
  - Involve the audience;
  - Keep the objective in focus.

Content:
  - Follow a logical structure, e.g. according to a chronological plan, a thematic plan, a problem/solution plan, a spatial plan or a causal plan;
  - Present illustrations, examples or fundamental or thought-provoking questions.

C. The conclusion

Objectives:
  - Engage the audience;
  - Leave an impression on the audience;
  - Aim for close interaction with the audience;
  - End the speech.

Content:
  - Provide a summary;
  - Repeat the key message.

Make notes

It is very useful to write prompts for public speaking.

Small (cardboard) cards are ideal for this purpose:
1. they are stiffer than paper;
2. they are more discreet and easier to handle than a large sheet of paper;
3. their size prompts us to be concise in our notes.

These notes act as a safety net in case of hesitation and allow the speaker not to have to read from a sheet (use keywords and not sentences). The notes must be sufficiently well spaced on the card to enable the speaker to use them as quick reference and maintain contact and interaction with the audience. It is preferable to write notes on one side only and to number them clearly in order to avoid getting confused.

The points when a visual document will be projected, pauses and timings can also be added to the cards. For the latter, it is preferable to note the actual time when each point
will be discussed, rather than its duration, so that it is easy to keep an eye on the planned progression.

Plan the use of aids

It is useful to ensure the information is presented to the audience in a way that enriches, illustrates and enlivens the presentation, as well as facilitating comprehension and the memorisation of the information. The most suitable aids must also be chosen to present this information.

The main teaching aids are:

- the paper board;
- the flip chart;
- transparencies;
- the slide show;
- audiovisual aids;
- the metaplan;
- written notes.

For a more in-depth discussion on these different aids and how they are used, see the chapter ‘Using the different teaching aids’

The presentation complies with two major principles:

1. Convey knowledge/information to a large number of people.
2. Facilitate time management and allow the transmission of a maximum amount of information in a minimum amount of time.

The group leader:

1. Makes a detailed plan;
2. Uses concrete examples;
3. Asks questions to stimulate the trainee’s attention.

The trainee:

1. Listens;
2. Reflects;
3. Reacts to the trainer’s questions.

Precautions:

1. Limit the length of the presentation.
2. Use the presentation in the form of a summary after active participation by the trainees.
3. Use visual aids, examples, stories and anecdotes.
4. Prepare and lead a presentation in accordance with certain learning rules. See below.
<table>
<thead>
<tr>
<th>We are most likely to understand and remember</th>
<th>The trainer must therefore</th>
</tr>
</thead>
</table>
| Information that is well structured and presented in a clear and intelligible manner. | - Try to be clear, simple and precise.  
  - Follow an obvious structure with clear transitions.  
  - Present and display the plan for the talk.  
  - Use terminology which is accessible to everybody. |
| Information that we have read and heard at the same time. | - Use visual aids (e.g. documents, objects, slides, boards). |
| Things which are related to what we already know. | - Explain by analogy; present what is new in relation to what is old, and what is unknown in relation to what is known. |
| Information that has been written or presented several times in different forms. | - Reformulate.  
  - Give summaries and reminders or ask the trainees to do so. |
| Information that is linked to a mnemonic (e.g. a number or abbreviation). | - Make use of mnemonic processes as often as possible (e.g. if seven phases in the progress of a procedure are being presented, say it, write it down and/or provide an aid which facilitates memorisation: it is easier to remember the elements in a series if we can remember their number). |
Devising the stages of a presentation

Objective(s):

Target audience:     Training:     Manual:

Content of the presentation (for each point, put the number of slides used in parentheses):

1) 1st key message:

   Important information to give in order to support the key message (explanations, illustrations, examples):
   - ...
   - ...
   - ...

   Additional information (anecdotes, facts):
   - ...
   - ...
   - ...

2) 2nd key message:

   Important information to give in order to support the key message (illustrations, examples, explanations):
   - ...
   - ...
   - ...

   Additional information (anecdotes, facts):
   - ...
   - ...
   - ...

3) 3rd key message:

   Important information to give in order to support the key message (illustrations, examples, explanations):
   - ...
   - ...
   - ...

   Additional information (anecdotes, facts):
   - ...
   - ...
   - ...
Giving a presentation – development of the session

Target audience:  
Training:  
Manual:  

Timing:

Session introduction:
S ____________________
I ____________________
O ____________________
M ____________________

Introduction of the presentation:
Present the structure and timing of the presentation (with slides)

Development of the presentation (restate the structure of the presentation and the number of any corresponding slides)

Conclusion – Summary (repeat the key message(s) of the presentation):
1) 1st key message:
2) 2nd key message:
3) 3rd key message:
4) ...

Any clarification or comprehension questions
4.2.2. Question and answer sessions

A question and answer session allows:
- trainees to express their views on the content of the session;
- to build knowledge with the trainees, by giving them an active role in their learning.

A question and answer session may take several forms.

We shall discuss two of these methods here:

- **Brainstorming**

Brainstorming can be used in different ways and is ideal for the production of ideas by participants, based on an open question.

The principle is relatively simple:
- The trainer asks the participants a question ('What do you believe are the advantages of using such and such a method?');
- They express ideas in response to the question. The trainer takes note of these ideas using a visual aid (e.g. paper board);
- A summary is then made.

This process does, however, require preparation by the trainer.

Specify the open question which will enable the session's objective to be achieved.

Choose the content-related elements which enable the question to be answered.

These elements can be added or used to support ideas proposed during the summary.

Some keys to success:

- Before beginning the session, it can be useful to write the question on the visual aid used. It should be written in large letters so that all of the participants can see it.
- While gathering ideas, ensure that as many participants as possible are able to express themselves.
- The focus should be on quantity rather than quality, and that ideas are expressed freely by the participants without being discussed or judged. All ideas are therefore kept, noted and displayed in order for everyone to see them. They will be evaluated and sorted only during a later phase of the work.
- During the session's preparation, it is useful to plan additional or follow-up questions to help with the information gathering if it proves to be difficult.
Preparing a brainstorming session

Objective(s):

Target audience: Training: Manual:

Open question:

Content-related elements enabling the question to be answered:

Additional or follow-up questions:
- ...
- ...
- ...
Leading a brainstorming session – development of the session

Target audience:  
Training:  
Manual:

Timing:

Session introduction:

S ________________
I ________________
O ________________
M ________________

Ask the open question (written on the paper board):

Gathering the participants’ ideas:
Ensure that as many participants as possible are able to express themselves. Note the participants’ ideas on the paper board.

Debriefing – summary:

Debriefing topics – content-related elements to be used or added:

- ...
- ...
- ...
- ...

Chapter 4
Group leadership techniques
The metaplan

The metaplan is a set of communication techniques which uses cards of various forms and colours, felt-tip pens and large sheets of paper in order to visualise, analyse and memorise the ideas and the information provided by participants.

A fundamental rule of the metaplan is to limit oneself to writing only one fact or idea per card, which allows the participants to read them better and to remember the resulting pieces of information. These cards are arranged on boards or on sheets of paper in order to be visible during the training session and to show the connections or the differences between them.

The metaplan is therefore a board used as an ideas organiser. It allows collective work to be seen by the whole group.

The main functions of the metaplan are to:

- Collect data: everybody’s ideas are displayed on the board.
- Transform data: if necessary, certain information can be removed, reformulated, supplemented or combined without having to rewrite the whole board.
- Group data: different groupings can be created and tested according to colour code, shape, size or spatial location.
- Model the data: simple models can be made by adding links, graphics and symbols to the board.

This type of session can be led in 3 phases:

1. The trainer asks an open question.
2. The participants – individually or in sub-groups – write their ideas on cards and place them on the board as they go along. The trainer starts arranging the cards.
3. The trainer leads a debriefing session during which the ideas are structured with the participants. He or she ends the session with a summary of the metaplan.

Once again, this process requires preparation by the trainer, who must:

- Specify the open question which will enable the session’s objective to be achieved.
- Choose the content-related elements which will enable the question to be answered.
- Possibly add these elements or use them to support ideas proposed during the summary.
- Perhaps use them as a central thread during the structuring of ideas.

---

1 The word ‘Metaplan’ is a registered trademark. See online references.
Preparing a metaplan

Objective(s):

Target audience: Training: Manual:

Open question:

Content-related elements enabling the question to be answered:

Additional or follow-up questions:

- ...
- ...
- ...
Leading a metaplan – development of the session

Target audience: Training: Manual:

Timing:

Session introduction:
S _______________________
I _______________________
O _______________________
M _______________________

Ask the open question (based on the metaplan):

Gathering the participants’ ideas:
The participants – individually or in sub-groups – write their ideas on cards.
They place them on the metaplan as they go along.
The trainer categories and arranges the cards as they go along.

Debriefing – summary:
Debriefing topics – content-related elements to be used or added:
- ...
- ...
- ...
- ...
- ...
4.3. Demonstrative method: the applied practice technique (APs)

The key aim of practical exercises is to allow participants to apply new knowledge to a concrete situation.

These exercises usually follow a presentation by the trainer, who proposes a new working method, new procedures or a new way of writing certain documents, for example.

Following the presentation, the trainer asks the participants to apply this new knowledge – covered in a general and non-contextualised manner – to a concrete situation in a particular context (which could be the company the participant works for).

During the preparation of a practical exercise, the trainer must pay attention to the way the instructions are formulated. They must be clear so that participants are able to carry out the exercise effectively according to the trainer’s expectations.

The trainer must also draft the documents required to carry out the exercise.

During the exercise, the trainer remains available to answer questions, point out any difficulties and check that the work is progressing.
Preparing a practical exercise

Objective(s):

Target audience: Training: Manual:

Situation to which the exercise applies:

Writing the documents required for the exercise (guide, framework):

Instructions:
- ...
- ...
- ...

Criteria enabling the result obtained to be validated:
- ...
- ...
- ...
- ...
Leading a practical exercise – development of the session

Target audience: Training: Manual:

Timing:

Session introduction:
S _______________________
I _______________________
O _______________________
M _______________________

Presentation of the exercise:
Distribute the documents and present the exercise.

Explain what is expected of the participants.

Individual work:
Ensure that the participants:
- have understood the work they have been asked to do;
- do not fall behind;
- have not come across a stumbling block.

Delivery? Interactive, deferred correction, presentation by some participants?
4.4. Discovery method: choosing a leadership technique

4.4.1. The simulation exercise

The simulation exercise is a concrete reconstruction based on a model, reproducing the main characteristics of a real-life scenario: a scenario which elicits the participants' reaction to an intimidating or difficult situation.

In general, the person takes on a role that is very similar to the role he or she may play in reality.

The leader does not intervene as regards the content, but organises and stimulates. The observers take note of what is happening and the analysis takes place later on.

This method:
1. elicits reactions to a concrete situation;
2. analyses these reactions and finds better solutions;
3. adjusts reactions to situations;
4. improves self-knowledge;
5. helps participants know how to react in real life.

The simulation exercise consists of practising – during a session, i.e. without risking the consequences of an error – the use of words, gestures and skillsets that will have to be mastered in future work situations.

These words, this behaviour and these skillsets are codified by regulations or procedures.

The exercises take place using real-life material or with simplified material especially designed for the simulation.

They are carried out according to an educational progression which does not necessarily follow the progression of real events: one may start by repeating specific gestures and with ‘sessions’ focusing on actions, and simulate all of the behaviour only after successfully completing the preceding operations.

This method has three advantages:
1. It is a very effective technique for learning complex procedures which leave little room for improvisation.
2. The trainee learns to employ devices or elements which he or she will have to use and may notice his or her own deficiencies or hesitations and correct them.
3. The ‘success’ or ‘failure’ of the learning exercise can be seen and interpreted immediately by the trainer and/or the trainee.
Preparing simulation exercises: three basic steps

Simulation exercises must provide information about the quality or qualities that need be demonstrated in a real-life situation.

- **First stage: Identify suitable situations against the objective to be achieved**

  It is important to start by determining the situations and the circumstances in which a specific skill would be used.

  The skill is written using the following wording: ‘Be capable of + action verb’.

  For example, station managers will have to be capable of informing staff about quality/traceability procedures prepared by the QTM.\(^2\)

  In this example, it is important to determine the circumstances in which this information will be provided, who the target audience will be, where it will be provided, the material used etc.

  To some extent, this serves as a framework for the simulation exercise.

- **Second stage: Prepare the content of the simulation exercise**

  This is the stage when the scenario is created and the items to include are chosen or drafted. The items to be included may take the form of a written document, a memorandum, a letter, a report or a work plan, for example.

  The items and the scenarios may be taken directly from an actual work situation, without any modifications.

  The trainer also includes guidelines at this stage. The trainer explains, ideally in a written document, what he or she expects of the person who is going to participate in the simulation. The trainer may also indicate the criteria for evaluation of the trainee’s performance.

  Taking the example of the station manager again, a document will have to be written stating the framework in which the simulation exercise will take place.

  As such, the quality/traceability procedures as prepared by the QTM will also be included.

  The content of the information the station manager will need to give to his or her staff will be provided in writing.

  The trainer will make sure to include his or her instructions (e.g. ‘You must inform your staff of the quality/traceability procedures prepared by your QTM.’). Similarly, he or she will specify the criteria for the evaluation of the trainee’s performance (e.g. Does the trainee know the procedures? Was his or her intervention clear, concise and structured?). The criteria concern both the content as well as the way in which it is used.

\(^2\) QTM: Quality and Traceability Manager
Third stage: Evaluate the trainee’s performance

This evaluation may take the form of a debriefing.

The trainer discusses the trainee’s performance with the participants as against the predetermined evaluation criteria.

The trainee who participated in the simulation is given the opportunity to speak first so that he or she may talk about his or her performance and experience during the simulation exercise.

The observers are then given the opportunity to put forward arguments regarding the positive aspects of the performance as well as those with room for improvement.

The trainer will have the task of structuring the debriefing session and of reviewing the important aspects to be implemented in order to make correct use of the new knowledge in a real work situation.

One learning rule prevails in a session based on the simulation exercise.

<table>
<thead>
<tr>
<th>We understand and remember best</th>
<th>The trainer must therefore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information we have had the chance to experiment with and use.</td>
<td>• Allow the trainees to apply the knowledge which has been presented to them.</td>
</tr>
<tr>
<td></td>
<td>• Allow the trainees to master their knowledge before using it in their real-life work situations.</td>
</tr>
</tbody>
</table>

A simulation exercise which takes place in the field may be considered a demonstrative method, in the sense that the trainee will apply the acts and behaviour which the trainer has shown him or her in a real-life situation.

The debriefing may take place in person where the simulation exercise was carried out, using the same format as that used during a session, i.e. a discussion of the trainee’s performance with respect to predetermined evaluation criteria.
Preparing a simulation exercise

Objective(s):

Target audience: Training: Manual:

Typical situation:

Stakeholder(s) in the situation:

Circumstances, environment, locations:

Drafting the scenario and the necessary documents (e.g. procedures prepared by the QTM):

What is expected of the participants:
(At this stage, observation checklists should be prepared in order to evaluate the participant’s performance)

Key points to highlight during the debriefing:

- ...
- ...
- ...
- ...
- ...

---

3 Observation checklist: an observation tool which includes different criteria and indicators for an evaluation. This tool is used in a session during an observation and must be adapted to the situation.
Leading a simulation exercise – development of the session

<table>
<thead>
<tr>
<th>Target audience:</th>
<th>Training:</th>
<th>Manual:</th>
</tr>
</thead>
</table>

Timing:

**Session introduction:**

<table>
<thead>
<tr>
<th>S</th>
<th>I</th>
<th>O</th>
<th>M</th>
</tr>
</thead>
</table>

Presentation of the simulation exercise:
Distribute the documents and present the situation.

Explain what is expected of the participants.

**Formation of and work in sub-groups:**
Ensure that the participants:
- have understood the work they have been asked to do;
- do not fall behind;
- have not come across a stumbling block;
- work as a team.

**Presentation of participants:**
Some participants take part in the simulation. The other members of the group observe (distribute the observation checklist).

**Summary:**
Summarise the options chosen by the different sub-groups.

**Debriefing (the participant speaks first, followed by the observers and then by a discussion of the performance):**
Key points to highlight during the debriefing:

- ...
- ...
4.4.2. The case study

A case study allows knowledge to be applied in order to:

1. analyse specific situations;
2. solve specific problems.

The case may take the form of text or a film, or a combination of both. It may have a small or large number of accompanying aids (e.g. figures, tables and interviews). The information provided must present the situation to be studied, the problem to be solved and the stakeholders, and if applicable the event giving rise to the problem.

The work must include:

1. analysis of the situation;
2. interpretation and evaluation of the data;
3. a decision to be taken;
4. a plan of action to carry out.

The case study therefore involves exploring and analysing the different aspects of a problem. The group participates in the discussion, and its internal dynamics encourage multiple interactions. There is no standard solution: the situation is formative as we must understand that our opinions are not necessarily the best or only ones possible.

We might summarise the advantages of the case study as follows:

1. it enables the development of adaptive abilities and provides a taste of realistic solutions;
2. it encourages an in-depth acquisition of techniques applied to concrete situations (through discovery, reflection and experimentation);
3. solving a case is a form of training in decision-making; it is an invitation to act;
4. it encourages teamwork.

☐ How to create a case

1. Once the teaching objectives are known, a typical situation must be chosen and described:
   - define the names and places;
   - describe the stakeholders, the circumstances, the environment, the facts and the different interactions.
2. Write the text in a clear and coherent way, while paying attention to the chronological structure of the information.
3. **End the case with a written reminder of what is expected of participants** (instructions: ‘We expect you to…’, or questions which they must answer: ‘What deficiencies or errors can you identify?’).

During the preparation of the case study, it is also important to **identify the elements of content** which will shed light on the case and the options chosen by the participants during the debriefing.
Ten recommendations for writing a case:

1. Write a detailed plan;
2. The key problems will be in keeping with the objectives and will be the focus of the case;
3. Be concise: five to ten pages maximum, including annexes;
4. Write in a clear and appealing way: the problem should be presented so that it engages the reader, so that they can identify with the case;
5. Limit the use of technical jargon and explain unfamiliar terms;
6. Describe the characters. Make the stakeholders in the case speak and interact as much as possible;
7. Limit the number and size of annexes;
8. Avoid superfluous details;
9. Avoid inconsistencies and errors with figures;
10. Avoid artificially increasing the complexity in order to make it seem ‘real’;
11. Present the problem in a clear and detailed way in order to guide the discussion of the case.

Leading a case study

There are generally five successive stages involved in leading a case study:

- **Stage 1. Presentation of the case study by the leader**

  The case study must be presented by answering four questions:
  1. What is it about? (Brief description)
  2. How was this case constructed?
  3. What will its purpose be? (Objective of this session)
  4. What is expected of participants? (Expected outcomes)

  Ensure that everybody has understood the case before moving on to stage 2: not spending enough time on this first stage is the surest way of losing a lot of time in the subsequent stages.

- **Stage 2: Formation of sub-groups**

  The size of the group (e.g. 25 people) may require sub-groups to be formed. The formation of sub-groups can take place spontaneously if the case does not require special technical skills. If the case requires specific technical expertise, the group leader should form the sub-groups themselves in order to homogenise them as much as possible and allow everybody to participate in analysing the case.

- **Stage 3: Working in sub-groups**

  During the work in sub-groups, the group leader moves between the groups to ensure that the participants:
  1. have understood the work they have been asked to do and carry out the work as they should;
  2. do not fall behind;
  3. have not come across a stumbling block;
4. work as a team and not individually.

The group leader remains on hand and acts as a resource for the group. If necessary, he or she may provide the tools required for the group work to progress.

- **Stage 4: Presentations by the sub-groups**

In order to facilitate and accelerate the presentations, each group must have visual and other aids, e.g. transparencies, paper, board etc. The presentation must be collective: this makes it livelier. Furthermore, this will make the members of the sub-group work together throughout.

The presentation must be:

1. **short**: the presentation must be concise so as not to be boring;
2. **interactive**: the other participants react, e.g. questions, reactions etc.;
3. **appropriate**: the team must answer the questions thoroughly;
4. **clear**: the team’s position must be expressed clearly;
5. **well argued**: all options are acceptable if they are well argued;
6. **coherent**: the different parts must form a whole (no gaps or superfluous parts).

If certain aspects of the second team’s presentation are identical to the first team’s, repetitions must be avoided. Therefore, the second team should be asked which points led them to make different choices and, where choices are identical, whether the same arguments led them to these choices.

The group leader tries to get the teams to explain the reasons for their choices and does not express his or her opinion regarding an option.

- **Stage 5: Summary and debriefing by the group leader**

The summary is a value added for the group leader. He or she will base their summary on the solutions proposed by the trainees. A case summary above all involves **summarising the options presented by the participants, incorporating the reactions to their presentation**.

The debriefing\(^4\) proper sense may then begin. The key content-related points identified during the preparation of the case study should be reviewed, in order to analyse the options chosen by the participants.

For a technical case, **the group leader must have the appropriate technical knowledge**. Otherwise the session will need to be led by someone who has the required skills.

**An alternative to the usual approach consists of inviting a guest.** This is interesting for two reasons: on the one hand, it livens up the preparation and adds to the sense of competition between the teams; while on the other hand it means an expert is available during the debriefing.

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\(^4\) Debriefing: a meeting during which participants take stock or review an operation or a project.
There are a number of precautions: first of all, the guest must understand and accept the role which the group leader would like them to play and must know the case beforehand.

The guest must abide by a few rules:
1. avoid talking about themselves and focus their attention on the case;
2. value the work carried out by the sub-groups;
3. provide value added in their comments or questions.

It does not matter whether the guest agrees with the options presented by the participants. What is important is why he or she agrees or disagrees.

Some practical advice:
1. During the sub-groups' preparation, they should be given the opportunity to work in separate rooms if possible, in order not to disturb one another. But the group leader must remember to tell the participants where they have to go before the sub-groups disperse.
2. During the development of the case, avoid static conclusions such as ‘advantages/disadvantages of the proposed solution’ and instead focus the debriefing more on actions: ‘favoured solution in the event that…’
3. During the work in sub-groups, if the group leader gives participants important information which is not included in the case, he or she must remember to give the information to the other groups.

The case study is in keeping with two major principles:
1. teaching through trial and error;
2. drawing on the personal experience of the trainee in order to evaluate a situation and solve a problem.

One learning rule prevails in a case study-based session.

<table>
<thead>
<tr>
<th>We understand and remember best</th>
<th>The trainer must therefore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information we have had the chance to experiment with and use.</td>
<td>Allow the trainees to apply the knowledge which has been presented to them.</td>
</tr>
</tbody>
</table>
Preparing a case

Objective(s):  
Target audience:  Training:  Manual:

Typical situation:

Stakeholder(s) in the situation:

Circumstances, environment, locations:

Facts:

Writing the case:

What is expected of the participants:

Content-related elements related to the case:
  - ...
  - ...
  - ...
Leading a case study – development of the session

Target audience: Training: Manual:

Timing:

Session introduction:
S ______________________
I ______________________
O ______________________
M ______________________

Presentation of the case study:
Distribute the case and present the situation. Explain what is expected of the participants.

Organisation and work in sub-groups:
Ensure that the participants:
- have understood the work they have been asked to do;
- do not fall behind;
- have not come across a stumbling block;
- work as a team.

Presentations by the sub-groups:
Each sub-group presents the options chosen for the proposed case.

Summary:
Summarise the options chosen by the different sub-groups.

Debriefing:
Key points to highlight during the debriefing:
- ...
- ...
- ...
4.5. The importance of instructions in the demonstrative and discovery methods

During the preparation or presentation of the development of an exercise, for example, we often have clear ideas. Documents and tools are chosen carefully and the exercise plan is based on sound, specific content.

However, when we are explaining our intentions in a course scenario, we sometimes become confused about the procedure which the trainees will have to follow. When giving details about the progress of the exercise, we sometimes improvise our choice of words and the way we organise the work.

Careful formulation and preparation of instructions for an activity are sometimes perceived as being unnecessary: ‘Everything is clear to me so there is no problem.’

However, the work involved in preparing and explaining an instruction is far from easy: an instruction must be clear and unambiguous and must clearly indicate the expected result.

It is common to hear trainers say: ‘the participants didn’t understand what I was asking them to do’; or ‘they did something completely different to what was indicated in the instructions’. Sometimes group exercises or simulation exercises fail because the instructions were not followed carefully.

It is for these reasons that the challenges of providing clear instructions require our attention and reflection.

It also needs to be underlined that, for the trainer, formulating instructions involves setting aside his or her point of view and adopting that of the trainee, not only in terms of learning but also in terms of communication: e.g. How can I express clearly what I would like to get them to do?

4.5.1. What is an instruction?

An instruction is a formal order given to someone who must carry it out. Here, the term ‘formal’ means ‘precisely and unequivocally formulated’.

It is a statement indicating the task to be accomplished or the objective to be achieved.

In most instructions, the trainer gives an order whereby he or she organises the group’s activities in a relatively short period of time (e.g. directly after the presentation of instructions or the following day).

The action to be carried out is clear from start to finish and is broken down into successive tasks.
The purpose of the instruction is to be able to verify what has been understood, remembered and acquired once the requested task has been completed: in other words, to evaluate the knowledge and/or know-how put into practice.

4.5.2. Formulating instructions

Instructions can take four forms: verbal, written, gestural (e.g. using a sprayer) or pictographic (e.g. a plan, an outline or a table).

In order to prepare the instructions, a number of questions must be answered:

☐ Who?

Who will be the stakeholders of the task? Will the action be carried out collectively, individually or in sub-groups?

☐ What?

Which processes will be used during the action? E.g. reading, observing, defining, explaining, schematising or supplementing. The instructions must be formulated in terms of the action to be carried out. The action and/or its outcome must be observable by the trainer.

Directly observable action verbs should be used here, such as:

- calculate
- seek
- classify
- tick
- glue
- colour
- supplement
- build
- cut out
- draw
- frame
- outline
- hatch
- write down
- measure
- name
- note
- number
- prepare
- copy out
- revise
- underline
- stack
- remove
- highlight
- trace
- sort etc.

☐ When?

When the task should be carried out, as well as its duration, must be specified.

☐ Where?

This question is aimed at specifying the spatial conditions for carrying out the action (e.g. in an office, in a field, outside, in a private conversation or in a U-shaped space).

☐ By when?

This refers to the time limit for the task (e.g. in 90 minutes, by 2pm, tomorrow morning etc.).
How?

What resources are available (e.g. documents, teaching material, personal notes etc.)? What is the trainer’s role during the development of the task (e.g. resource person, arbiter, silent observer etc.).

Why?

What is the purpose of the task? What are the objectives of the exercise? The SIOM elements should be applied.

4.5.3. The presentation of instructions

We should use what we have written. It is not necessary to learn the text by heart. It can be read, which ensures that nothing will be forgotten and that the quality of our preparation will not be hampered by paraphrasing.

It is not enough to just read the instructions. In order for everything to run smoothly, the participants must assimilate the knowledge. The instructions must be understood.

Not every participant is satisfied with a fairly passive way of listening. They listen by interpreting what is being said about what they will have to do; in other words, they assimilate the instructions.

Some recommendations:

1. Avoid speaking too quickly.
2. Give one instruction at a time.
3. Use familiar and meaningful vocabulary.
4. Accentuate the important words.
5. Accompany what is said with gestures and images.
6. Use visual aids (images, tables, outlines etc.).
7. Add intonation and facial expressions.
8. Give a demonstration.
9. Verify whether the participants have understood and answer their questions.
10. Phrase the instructions in a different way if the participants have not understood.
11. Write the important points (e.g. the keywords) on the paper board.

4.5.4. Evaluating the task

After the action, we must watch out for errors and the difficulties encountered by the participants during the learning situation in order to adjust and adapt our way of formulating and presenting the target material.

If the trainee has not understood the vocabulary or its specific meanings, and if they have not understood the syntactic structure, we should reconsider the way we have formulated the instructions.
If the trainee was not capable of using the ‘information’ or the ‘data’, in future we should perhaps emphasise the link between the data and the instructions. Similarly, if they have had difficulties linking the exercise to a presentation or if they have not understood the purpose of the exercise, we must highlight the link between the exercise and its theoretical content when presenting the instructions.

If the participant has not seen the key words in the instructions, it would be a good idea to highlight them in future.

If the trainee has made poor use of the time available for doing the exercise or did not have enough time, we should consider the time schedule for the task to be accomplished, or re-evaluate the time allocated to the exercise.

In conclusion, formulating instructions is demanding!

To a certain extent, it requires us to anticipate the behaviour of participants: to have the ability to set aside our point of view, to be able to identify with the people receiving the instructions, to be able to be self-critical and ensure that we are not creating any ambiguities.

Generally speaking, the trainer will be more effective if he or she clarifies what is being asked. They must be clear about what they would like to work on with the trainees in order to think about, prepare, write and present the instructions.
Chapter 5

Different types of meetings and their organisation

5.1. Holding a meeting ................................................................. 98
5.2. Different types of meetings .................................................. 106
5.1. Holding a meeting

5.1.1. Definition

A meeting is a gathering of people which must be chaired, led and managed in order for everyone to be able to participate in optimal conditions.

The leader of a meeting is responsible for defining its parameters by establishing and communicating the ‘SIOM’, and implements the three major functions of group leadership in order to encourage active participation by all participants at the meeting.

5.1.2. The stages of a meeting

☐ First stage: preparation

Many people think that a meeting begins once the leader and the participants are sitting around a table. Although this may be true in certain cases for the people who are invited to the meeting, it is not so for the leader of the meeting.

The leader must ask a series of questions which require a specific answer. He or she must also carry out a series of tasks beforehand so that once he or she has decided to organise a meeting they can ensure it will run smoothly.

In other words, a meeting cannot be improvised. On the contrary, in order to be effective and therefore meet objectives in an appropriate setting and atmosphere, a meeting must be carefully prepared. For a two-hour meeting, it would not be surprising for an inexperienced meeting leader to have to devote almost twice as much time to the preparation.

Before embarking on this, different aspects need to be planned.

1. The material conditions

First of all, the meeting's leader must write and send a notice to attend to the different participants (previously identified).

This notice to attend will include, as a minimum: the date of the meeting, its length (time the meeting starts and ends), the location (with an access map if necessary), the full agenda (or as full as possible) as well as the documents and material the participants need to bring. Similarly, as regards the material, the leader will prepare everything he or she will need during the meeting (markers, chalk, transparencies, sheets, coloured cards, etc.).

The layout of the space is also important. It must also be decided beforehand by considering various questions such as: Will the room be heated and well lit? How are the acoustics? Will the participants be comfortable?
The smooth running of a meeting is largely dependent on the layout of the tables. It is advisable for them to be positioned in a hexagonal or oval pattern rather than a rectangular pattern – this layout makes interactions between everyone more difficult due to the simple fact that the participants cannot see each other. A U-shape is not advisable either for the same reasons.

As regards the atmosphere and the peace and quiet, it goes without saying that places where people are constantly coming and going should be avoided. It is preferable to choose a place which is sufficiently soundproof.

Finally, it is usually advisable for a meeting not to last more than two and a half hours in order to avoid information overload and other problems. Regardless of the meeting’s duration, the leader must plan a sufficient number of breaks in order to ensure that the participants do not lose interest.

2. Content and methodology

The leader of the meeting cannot always be an expert in the field discussed during the meeting. However, he or she will need to find out more about the topic of the meeting and above all understand the sometimes very specialised vocabulary used by the participants.

Possessing particular expertise as regards the content has considerable advantages, but ‘not always’, or ‘only insofar as the leader does not focus on the content to the detriment of the group’s work processes, and only if what he or she says in terms of the content is selective and does not hinder the participation of members of the group’. In other words, the leader will only speak about the content if necessary or if no other member of the group is able to do so instead.

Although the leader of the meeting does not necessarily have to be an expert in the content, he or she must have a good grasp of the methodology. The leader is solely responsible for the methodology used during the meeting.

He or she must prepare methodology that is suitable for the meeting’s objectives, the nature of the task, the types of participants, etc. As well as being responsible for preparing it, he or she must also implement and regulate the meeting if necessary during the meeting itself.

3. Individual preparation

The leader must consider questions such as:
- How do I feel about the content of the meeting I’m going to be leading? Do I know enough about it?
- Who are the participants? Why are they participating in the meeting? What are their particular issues?
- What is the context of the meeting?
- Have things been organised in an appropriate and suitable way?
- What are the difficulties I am likely to encounter?
- What could I implement in order to manage them?...
- ...

Chapter 5
Different types of meetings and their organisation
Second stage: opening the meeting and communicating the SIOM

As with any work with a group, as a leader, it is obviously good form to start the session – in this case the meeting – with a few words to welcome the participants, and to introduce oneself ‘fairly precisely’ from a professional point of view (without getting into anything personal, i.e. it is not necessary to say how old we are, whether or not we are married or have children, where we live, etc.). By specifying our mission in the framework of the meeting we are able to clarify everyone’s role. As well as the leader introducing him or herself, it can also be helpful for participants to do the same. When the participants have never met and/or have never had the occasion to meet in the framework of the topic being discussed at the meeting, it is important for them to be informed about who the others are, what their experience is with the meeting’s subject and what their expectations of the meeting are.

The answer to these different questions allows all of the participants to get to know each other better and to get comfortable in a meeting situation. It also allows the leader to obtain information which may be useful during the meeting. By hearing the participants’ expectations, he or she gets some initial feedback on the suitability of his or her preparation with respect to how they view things. From the beginning, he or she may therefore regulate the meeting to a certain extent (since of course not everything can be modified), if it proves necessary.

After the presentation phase, it is time for the leader to define the framework for the meeting and therefore to specify the ‘SIOM’.

By proceeding in this way, the following questions will be answered:

- S = Subject ... ☝ What is the topic of the meeting?
- I = Importance ... ☝ What is the relevance of the meeting to the participants?
- O = Object ... ☝ What is the topic of the meeting?
- M = Method ... ☝ What will be the main stages of the meeting?

Third stage: the meeting’s development

As presented in the previous chapter, the development of the meeting will be determined by the three functions of group leadership. By way of reminder, these are:
1. The production function

The production function relates to everything which directly contributes to solving the problem, such as:

- communicating information about the problem;
- making proposals about the way to sort and organise the information regarding the problem in order to move towards a solution;
- dismissing – on a purely logical basis – proposals which will not result in a solution to the problem;
- showing that proposed solutions might not resolve the problem;
- finding the solution to the problem.

However, not all meetings have the aim of solving a problem. We will have the opportunity to look at this in further details later on when discussing the different types of meeting.

Depending on the nature of the meeting, ‘production’ will consist of taking decisions, conveying information, gathering information and/or carrying out work as a group.

The leader does not intervene as regards content in the group’s production. Rather than use their potential position of authority (because he or she is the leader and/or because he or she has some experience with respect to the content) to impose his or her ideas, the leader will be responsible for facilitating the group’s production. He or she will therefore be in charge of encouraging and supporting the participation of everyone and of facilitating interaction.

2. The facilitation function

Facilitation involves everything which contributes to a functioning of the group which contributes to solving the problem or, more generally, to achieving the objectives. The actions related to this category are:

- to make proposals regarding the way the group work should be organised (designate roles, e.g. secretary);
to ensure that the adopted organisation is maintained throughout;
- to ensure that everyone is able to express themselves so that all of the individual resources are used;
- to take note for everyone;
- to remind the group of the amount of time left and to manage it;
- to sum up, to indicate how far the group has got and what remains to be done, and to keep a record of the group’s progress.

For the leader of the meeting, facilitating may also consist of other actions such as:
- clarifying the objectives;
- reformulating (behaviour which facilitates both listening and expressing oneself while stimulating interaction between the participants);
- structuring and summarising at all levels (behaviour which facilitates comprehension and assimilation, and which regulates discussion) in parallel to the summing up action.

Finally, the facilitation function may take shape by applying techniques such as:
- the ‘test question’ which consists of getting the participants to define a word or a concept which they use differently;
- the direct call to participation or the questioning of a participant (without being brusque);
- the ‘echo question’, by repeating the question the participant has just asked and turning it back to them;
- the ‘relay question’, by questioning another participant in response to a participant’s question;
- the ‘mirror question’, by questioning the whole group in response to a participant’s question;
- the follow-up question, by asking the whole group a question raised earlier which was not answered.

3. The regulation function

Regulation relates to everything which helps to create and maintain relations which promote the group’s collaboration on the shared task. It manifests itself in behaviour such as:
- encouraging those who seem too shy to participate to do so;
- showing that we appreciate, value and admire those who make proposals and share ideas and opinions we consider interesting (this is not recommended for the leader of the meeting);
- openly showing our agreement with the proposals, ideas and opinions expressed by others (this is not recommended for the leader of the meeting);
- clearing up disagreements and suggesting compromises;
- calming down those who get worked up, appeasing any hostilities;
- ensuring that those who are quicker do not rush or leave behind those who are slower.

The organisation of a meeting cannot be improvised; careful preparation is absolutely necessary. But leading a meeting also means leading a group, and when it comes to group leadership, we cannot plan for everything. Participants have their own personalities and sensibilities, and a specific past, present and future. It is not always possible to
anticipate how each of these parameters will emerge themselves in a group situation. This is why the leader of the meeting will have to manage critical incidents and difficult moments sooner or later. It is difficult to present an exhaustive list of the incidents which may arise during a meeting; we will therefore only mention some of them, along with brief ideas for action/reaction.

- The prolonged silence of a participant

If this occurs, he or she should be encouraged to participate and invited to speak and give their opinion, without being brusque or singling him or her out. Since his or her silence does not always mean that they are not participating, we must ensure that the intervention does not have the opposite effect, and ask ourselves why this silence is awkward for the participant and for the others.

When someone is not speaking, the leader must resist the temptation to break the silence. It is advisable to let a participant break the silence and/or question the group about why there is a prolonged silence.

- Continuous talking by one participant

If two of the participants are having an irrelevant conversation, the leader must intervene and get them to refocus on the group’s task, while taking care not to be brusque in order not to discourage them from participating actively again. If one participant monopolises the session, it may be a good idea to ask them to be brief, by mentioning the rule whereby each participant is entitled to an equal amount of speaking time.

- Expertise

When faced with a question or an idea which they cannot resolve, the participants often ask the leader, ‘What would you do in our position?’

In this scenario, it is important for the leader not to answer the question but rather to turn it back to the group. He or she may also react by asking the group to explain why his or her answer could be useful. This will allow him or her to maintain his role as leader and not get involved in the debate as an expert.

- The embarrassing question

When a participant or the group as a whole asks the leader an embarrassing question, it is recommended that they turn the question back to the group so that they can answer it together.

☐ Fourth stage: closing the meeting

1. Verify that the objectives have been achieved

First of all, the leader of the meeting ensures that the objectives set beforehand and discussed during the opening phase of the meeting (cf. SIOM) have been met. Even

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1 These examples of difficult moments are taken from the book: Mucchielli, R., 2000, *La conduite des réunions, Les fondamentaux du travail en groupe* (Collection Formation Permanente – Séminaires Mucchielli), published by ESF.
though the leader must bear them in mind throughout the meeting, he or she goes over them one by one when closing the meeting, explaining how they were achieved or otherwise. Some objectives require several meetings to order to be achieved.

2. **Provide a summary**

A *summary* of the meeting must be provided and presented. In other words, the leader summarises what has been said and decided, as well as what happened during the meeting.

3. **Evaluate progress**

Finally, the leader carries out an *evaluation* of the meeting's progress, either by questioning the participants verbally or by distributing a questionnaire to complete. Either way, it is important for the leader to keep a written record of this evaluation in order to plan how to organise the next meeting, if need be.

- **Fifth stage: formalising progress**

A written document should be produced in order to keep a record of what was said and decided, as well as what happened during the meeting. It is important for this to be done as soon as possible after the meeting. This is obviously all the more essential when it has been planned or decided that the discussions will continue over one or more meetings.

This document may take two different forms: minutes or a report, and must be sent to all participants.

1. **Meeting minutes**

Here, the group is not considered as an entity but as a series of people who have taken part in the meeting individually. It is therefore a full typescript report of the discussion which took place during the meeting. This rather cumbersome and voluminous tool is used primarily in strategic meetings, which may include partners with opposing positions (e.g. staff committee meetings). Furthermore, it enables people’s statements, the number of statements and the content of their statements to be evaluated. The focus is therefore on what the participants say individually.

2. **Meeting report**

This type of document is by far the most common, and provides a written review of the work carried out by the group (the summary and, importantly, all the proposals made, the decisions taken and the organisation of the action). It must be a mirror reflection of the group. It is a practical tool used as a quick reference for the action.
In summary: **5 stages and 3 key moments**

<table>
<thead>
<tr>
<th>1. Before the meeting:</th>
<th>The leader is alone</th>
</tr>
</thead>
</table>
| **Stage 1:** Preparation | • Material conditions  
                          • Content and methodology  
                          • Leader only |

<table>
<thead>
<tr>
<th>2. During the meeting:</th>
<th>The leader is now with the participants</th>
</tr>
</thead>
</table>
| **Stage 2:** Opening the meeting and communicating the SIOM | • Welcoming the participants  
                                                                 • Presentation of the leader  
                                                                 • Presentation of participants  
                                                                 • Communication of their expectations  
                                                                 • Communicating the SIOM |

| **Stage 3:** Development | • Production function  
                          • Facilitation function  
                          • Regulation function |

| **Stage 4:** Close of the meeting | • Verify whether the objectives have been achieved  
                                      • Provide the summary  
                                      • Evaluate the progress of the meeting |

<table>
<thead>
<tr>
<th>3. After the meeting:</th>
<th>The leader is alone</th>
</tr>
</thead>
</table>
| **Stage 5:** Formalising the progress | • Writing the minutes or a report  
                                         • Sending the summary document to the participants |
5.2. Different types of meetings

5.2.1. Top-down information meetings

When the leader is in a situation where he or she must hold a top-down information meeting, he or she pursues the objective to be heard and above all understood by the participants.

- **Different phases**
  
  1. The presentation of information

A top-down information meeting involves two main phases. The first consists of the idea of conveying and presenting information to a group of people.

There are different types:

- Simple information
  
  This involves presenting the content of a report, a review or a survey, for example.

- A briefing
  
  This consists of presenting preliminary information about an action which the participants will have to carry out individually or collectively.
Feedback
In this case, the leader of the meeting communicates the results of a survey, interviews, opinion polls, etc. to which the participants have contributed as interviewees.

2. Discussion or feedback

In order to ensure that the stated objective will be met, the group enters the second phase of exchange or feedback during which the participants are invited to speak. They may therefore ask as many questions as they like. Depending on these questions, the leader provides additional explanations as well as clarifications if necessary.

☐ Some recommendations

As in all meetings, before presenting the information, the leader must introduce themselves and state the objective of what they will be saying.

Similarly, the leader will ensure that his or her presentation is clear, precise, well ordered and structured so that the participants – who in this case are listeners and the receivers of the message – do not get bored and lose interest.

A top-down meeting should also be prepared by taking into account participants’ expectations and potential issues. Taking these elements (which are not of course always foreseeable) into account may make have a significant impact on the smooth running of the meeting.

Finally, for the discussion phase, it is important to announce clearly that questions are appreciated and to show openly that questions are more than welcome. It is therefore never a good idea to be brusque with the participants. Remember that the objective is to be listened to and understood; therefore, no question is superfluous and they are all worth asking. In order to further facilitate comprehension, the leader shouldn’t hesitate to rephrase a question, to repeat it or to provide more specific details, for example.

Everything will of course be done in order to provide the most precise and comprehensive answers possible to any questions raised. Similarly, additional information will be given so that if participants do not fully understand something this is clarified and resolved.

5.2.2. Bottom-up information meetings

This type of meeting is also called a ‘group interview’ and, by questioning a group, is aimed at gathering information regarding the social and/or interpersonal circumstances of participants. In other words, this involves gathering information from the people who hold it, the people it concerns or who are affected by the same situation.
Different phases

As a tool for gathering data which could form part of the processes as a survey on motivation, an opinion poll or a needs analysis, this type of meeting includes three main phases.

1. Defining the parameters

As we have seen, while the framework must be defined all meetings, in this case the leader – in addition to specifying the timing, the objective, the method, etc. – asks the group the question in order to obtain the information that interests them.

2. The group interview

The second phase involves the group interview proper. This is when the participants tell the leader the situation about which he or she wishes to obtain information.

3. Clarification

The leader asks clarification questions once again about the information provided by the group on the topic.

Some recommendations

In order to hold this type of meeting, the leader must be clear about the precise content of the group interview.
Similarly, it is undoubtedly effective to research the social reality shared by the members of the group beforehand in order to understand and make better use of what is said during the meeting.

Finally, if we wish to gather qualitative information which can be used for purposes defined elsewhere, it is paramount that the leader implements a series of actions, such as encouraging everyone to participate and therefore gather all opinions, warmly welcoming all of the opinions while remaining neutral, not intervening in terms of the content of what is said, reformulating opinions in order to strive for a gradual clarification, continuously summarising (partially and fully) the opinions presented, and of course, analysing interactions – a group leader's main tool.

5.2.3. Decision-making meetings

This type of meeting is aimed at solving a given problem and/or taking a decision with respect to a given problem.

Different phases

Solving a problem or taking a decision as a group involves using specific methodology\(^2\) that consists of different phases:

\(^2\) The stages of decision-making according to Dick Wallen, National Training Laboratories.
1. Preliminary exploration

This involves creating an inventory of the needs of the group and its members, as well as the group's resources, with restrictions taken into account (time, location, etc.).

At this stage, the leader may ask the participants to suggest different possibilities for action in terms of their needs and the restrictions.

2. Defining the problem

Defining the problem involves amply identifying and explaining the common objective of the group. The leader defines the question that needs to be answered or the problem to be solved.

Furthermore, he or she will ensure that the words used have the same meaning for all of the members participating in the meeting. Otherwise, the work may become complicated.

3. The inventory of opinions

The leader invites the participants to come up with ideas about question asked, the topic of the discussion or the problem to be solved, to share their opinions and to communicate information or proposals for a solution.

He or she will pay special attention to the fact that each participant should be allowed to express themselves without any value judgements being made about what they say.

4. Verification of opinions and formulation of hypotheses

During a discussion led by the leader where each person is invited to express their views, the leader carries out a methodical evaluation of the ideas, information, opinions and proposals for solutions expressed beforehand by comparing them against the shared objective formulated and explained during the first phase.

The gap between each comment made during the second phase and the shared objective identified during the first phase is measured.

5. Decision making

Through the discussion which takes place among the group of participants, the solution or proposal for action which seems best from a realistic and practical point of view is chosen. In order to reach this point, the leader ensures that the gaps which appeared during the previous phase as well as the reasons for them are taken into account by the group of participants.

Similarly, he or she must ensure that the decision and the proposals for action or solutions are formally accepted by everyone for similar and complementary reasons.

The leader will also ensure that everyone has clearly understood the consequences and fully accepts them. He or she will provide them again if necessary.

The decision must therefore be taken explicitly: formulate it, get everyone to express their views, communicate it again so that it is well assimilated into the group's memory.
Some recommendations

It is not always easy to solve a problem or take a decision. Here are some proposals for action/reaction which could be specific to this type of meeting.

First of all, the leader must ensure the production of ideas, information and possible solutions by each participant, while absolutely preventing any value judgment. It may sometimes be useful to break down the final goal into secondary objectives for this phase of production.

Certain group leaders are in the habit of thinking that conflict or disagreement is unhealthy or even destructive; they therefore prevent any possible conflicts from arising. It is important to disregard this generally accepted idea because if a conflict is managed appropriately, it can solve a certain number of problems and generate innovative solutions. As it is a question of solutions and original ideas, the use of creativity techniques may be appropriate in a problem solving/decision-making meeting. Brainstorming is one example.

Similarly, when there is a disagreement or opposition in the group, the leader could attempt to encourage logical lines of argument and single out any arguments which tend towards excessive subjectivity. If this proves to be a difficult approach, the leader will nevertheless help the group not to think in terms of ‘winners’ and ‘losers’, just as he or she will ensure that the disagreements are not felt to be signs of hostility.

Finally, once the solution or decision is agreed on, the leader will get each participant to share their thoughts on the solution or decision and will repeat it so that it is understood by everyone.

Notions of unanimity and consensus

1. Unanimity

There is unanimity when all of the participants explicitly share the same opinion. Each one would take the same decision if they were to decide on their own.

2. Consensus

There is a consensus when all of the participants agree on the solution which appears to be the best one, bearing in mind the current group. Each participant must clearly see the advantages of the proposal which he or she agrees with. If each participant cannot see these advantages, it will be considered a superficial agreement or a ‘loose consensus’.

Note that decisions taken by consensus are the most effective: each member of the group feels personally committed to implementing the decision.
Chapter 5
Different types of meetings and their organisation

Personal notes

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...........................................................
Chapter 6

Communication and the coaching relationship

6.1. Coaching: terms of reference ................................................................. 114
6.2. The coaching interviews ...................................................................... 118
6.3. Some coaching techniques ................................................................. 124
6.1. Coaching: terms of reference

6.1.1. What is coaching?

Etymologically, the English word ‘coach’ refers to a carriage for transporting travellers.

By way of analogy, ‘coaching’ refers to a means of accompanying from one place to another, or of accompanying to a specific place.

The illustration opposite shows that simply knowing the destination is not enough to make the journey an easy one.

Professional coaching is a type of support method to help a person achieve an objective in a real-life professional situation by relying on his or her own resources and skills. Helping a person does not mean ‘providing a solution to a problem’ or ‘doing something on someone’s behalf’, as this would not allow the person being coached to develop his or her skills. In the coaching approach, the person being coached is the only one in control of his or her own journey and professional circumstances. The aim is to develop the recipient’s professional skills and autonomy, with the emphasis on the recipient as a person, on his or her strengths, weaknesses, personal obstacles, aptitudes, etc.

6.1.2. How does coaching work?

Unlike more traditional methods for conveying knowledge, such as training, coaching involves guiding a person in the development of his or her own resources in order to find an answer to a professional situation. Coaching can only take place when the recipient already has certain basic skills. Coaching will therefore allow the professional to implement skills at work, with individual support.

We generally talk about coaching interviews, since the interview is the preferred method of coaching. Coaching therefore takes place within a one-on-one relationship, face to face. When face-to-face interaction is not possible, it takes place over the telephone or via a computer screen (Skype). This interview situation requires special management which is different from that of a training group.

It is the person being coached who is and will remain on the journey, and not the coach. It is therefore essential to provide the person being coached with all possible means to walk alone, by anticipating problems and finding suitable solutions for the journey and for them personally. This is a way of putting reality to the test which requires all aspects of the context to be taken into account in order to find an appropriate answer. We are not all
the same. Some people walk quickly whereas others are slower. The strength of coaching lies in how it adapts to the person being coached.

As in all communication, the context, adapting the message to the individual and the form given to the message must be taken into account in order for coaching to be effective. However, what particularly distinguishes coaching from other training methods is the importance placed on the relationship. It is the relationship that forms the basis for learning and enables the autonomy of the person being coached to develop. The relationship is more important than the content.

6.1.3. When is coaching advisable?

Coaching is suitable for implementing skills and improving performance in professional situations in the field. It is also useful when basic knowledge, know-how and methods have been learned but their application requires further development, or when a new situation emerges which disrupts the habits of the person being coached and leads them to require new working methods.

In these situations, the attention is focused on the person who must implement his or her skills, as the way in which he or she takes charge of his or her work plays a key role in its success. At this stage, it no longer involves only the knowledge and techniques to be implemented, as the person is often familiar with them. Instead, it involves developing the resources of the person being coached in a specific situation.

6.1.4. The coach’s expertise and attitudes

The two levels of expertise of the coach

Coaching is characterised by the way a person is supported in the search for solutions. Anyone may give advice to a colleague, support them or provide feedback. But advisory coaching interviews, support and evaluation make a difference, as they allow the person being coached to test and integrate this advice, support and feedback in their work. This shows the importance of the process and the relationship with respect to the content.

The coach therefore has two levels of expertise (in order of importance):

- the coaching process and management of the relationship, and
- the professional field of the person being coached.

Although, depending on the type of coaching, it is preferable for the coach to have specific expertise in the professional field of the person being coached, this expertise may prove to be a pitfall for coaching. Often, an expert very quickly has an idea for the solution to be implemented and the way to do things. However, doing so does not develop the skills of the person being coached. On the contrary, the person being coached remains dependent on the opinion of an expert and misses out on the chance to come up with a solution and test it under the supervision of a coach.
Furthermore, the person being coached has a position in the organisation which should be taken into consideration in order to develop his or her skills. Is he or she new in the organisation? Do they have hierarchical responsibility? In what way are the people around them made aware of the approach? All of these points make each situation unique. Of course, the keen eye of an expert will allow them to identify the important elements of the situation more quickly. Nevertheless, reacting too quickly would indicate that they are following their own pace rather than that of the person being coached, and have therefore misunderstood their role.

- **Helpful coach attitudes**

Several attitudes can be indispensable in the way the management of the relationship is facilitated, and thus the learning and development process during coaching.

<table>
<thead>
<tr>
<th>Helpful coach attitudes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active listening</td>
</tr>
<tr>
<td>Sympathetic neutrality</td>
</tr>
<tr>
<td>Empathy</td>
</tr>
<tr>
<td>Positive perception of the capabilities of the person being coached</td>
</tr>
<tr>
<td>Working on the process and not on the solution</td>
</tr>
<tr>
<td>Confidentiality</td>
</tr>
<tr>
<td>Motivating the person being coached</td>
</tr>
<tr>
<td>Encouraging attitude</td>
</tr>
</tbody>
</table>

- **Active listening and sympathetic neutrality**

The coach places him or herself in a position of openness and active listening. He or she tries to understand the situation of the person being coached and to enter his or her frame of reference. He or she does not make judgements but tries to understand the situation from the point of view of that person. The coach demonstrates neutrality towards the situation and remains sympathetic towards the person being coached. He or she takes an objective stance with respect to his or her own feelings and avoids being influenced by what the person being coached says.

If the person being coached feels that he or she is being listened to, they can progress with a feeling of security.

- **Empathy**

The coach shows empathy, i.e. he or she identifies with the feelings of the person being coached by trying to understand his or her way of seeing the situation, as well as their feelings, worries, desires and personal obstacles. By taking the point of view of the person being coached into consideration, the situation can evolve in future.
Positive perception of the capabilities of the person being coached

The way the coach views the person being coached has a huge impact on the process and the achievement of results. If the coach does not believe in the ability of the person being coached to implement an appropriate solution, the latter has no chance of doing so. The coach must therefore have confidence in the capabilities of the person being coached to find a solution to his or her problem. Furthermore, any negative judgement would result in biases in the coach's perception, which would hinder the neutrality necessary for an objective analysis.

Working on the process and not on the solution

The coach provides support during the problem solving or evaluation process. He or she therefore does not try to find a solution at all costs on behalf of the person being coached. By being solution-oriented, there is a risk that the coach will want to impose his or her own vision on the person being coached without exploring all of the possibilities, and without taking into consideration the opportunities of the person being coached to find a solution. This would lead to a break in the relationship.

Confidentiality

By stating confidentiality rules about what is said in a coaching situation, the person being coached is able to express him or herself freely, without concern of negative consequences outside the interview. He or she can share their worries or apprehensions freely, and thus move beyond his or her personal obstacles.

Motivating the person being coached

The coach supports the person being coached in his or her reflections and search for a solution through questioning. They do not speak on his or her behalf. He or she tries to keep the person being coached involved in the problem situation.

Encouraging attitude

The coach encourages the person being coached throughout his or her progress.
6.2. The coaching interviews

6.2.1. Types of coaching interview

Not all coaching situations have the same objective. It is important to specify the coaching objective in order to define the most appropriate methodology.

In a classic training process and in a training process for trainers, we can identify several situations in which coaching is particularly advisable: when an expert trainer provides support to a company manager following a training session, when an expert provides support to a manager or to someone who has completed a training session as part of an evaluation approach, or when a senior trainer supports a junior trainer. Each of these situations may make use of different types of interview, according to whether there is a need for advice, support or evaluation.

- The advisory interview

<table>
<thead>
<tr>
<th>Objective</th>
<th>Provide advice, suggestions or good practice to a person being coached in response to a specific situation or an identified problem</th>
</tr>
</thead>
</table>
| Roles and stakeholders involved | Person being coached: Novice  
Coach: Expert |
| Interview | Face-to-face/Skype/Telephone |

The advisory interview is used to help someone who has completed a training session in response to a specific situation or an identified problem. In this type of interview an ‘expert’ assists a ‘novice’ with the identified problem. The expert therefore provides solutions, suggestions or rules of good practice.

Providing a solution to a novice during a coaching session is without question a process which must be managed according to the rules of coaching. In other words, the quality of the solution provided may be very suitable, but if the process accompanying it is not managed, the solution will have no chance of being taken into account or implemented.

The coach’s attitude, the stages and rules for conducting an interview are essential here. The ‘advice’ may only come into play once the relationship has been established and after an in-depth analysis, and be in line with the pace of the person being coached, as he or she must be the one who implements the solution.
The support interview

Objective
Develop the individual capacities of the person being coached so that he or she is able to find solutions to a complex problem or identify a need for change

Roles and stakeholders involved
Hierarchy or person being coached: asker(s)
Coach: supporter, enlightener

Interview
Face-to-face/ (Skype)

Unlike the advisory interview, the support interview does not refer to a specific problem, but is centred on the existence of a complex problem and the existence of a need for change. It does not involve proposing a solution to the person being coached, but supporting him or her in a process to develop his or her own solutions. This type of support interview usually takes place at the request of someone who has completed a training session, as well as his or her line manager.

As with any interview, the objectives should be clearly defined and it should be in keeping with the general stages of the coaching interview.

The evaluation interview

Objective
Evaluate in a formalised and constructive way the implementation of learning by a person being coached in order to identify the process which has or has not allowed him or her to obtain results, as well as courses of action

Roles and stakeholders involved
Person being coached: evaluated
Coach: Person asked to carry out an evaluation (line manager, senior trainer, expert, etc.)

Interview
Face-to-face/ (Skype)

The evaluation interview takes place in a formalised framework between a person in a learning situation (a collaborator with objectives to achieve), and a person specifically tasked with evaluating the implementation of his or her skills (a line manager, a trainer, an expert, etc.).

This involves making an assessment of the results achieved and of the way in which what has been learned and the skills are implemented in a professional situation. This evaluation approach is intended to be a coaching approach insofar as the evaluation is an integral part of any learning process.

The evaluation interview presupposes that learning and implementation objectives have been defined beforehand. The purpose of the interview is to evaluate their actual fulfilment.
6.2.2. The stages of a coaching interview

The coaching interview is a structured exchange between two people who respect certain stages. By respecting these stages, it is easier to control the framework of the interview and consequently to achieve the objective.

<table>
<thead>
<tr>
<th>The stages of a coaching interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Establishing the relationship: ice-breaker, listen, do not rush towards solutions, etc.</td>
</tr>
<tr>
<td>2. Defining the parameters: explanation of the why, what and how (type of interview, duration, definition of an objective, a way of working, etc.)</td>
</tr>
<tr>
<td>Analysing the problem and establishing a solution process:</td>
</tr>
<tr>
<td>3. understanding the problem, support for and validation of solutions to be implemented</td>
</tr>
<tr>
<td>4. Closing the session and organising follow-up: summary of the interview and preparing for what comes next</td>
</tr>
</tbody>
</table>

1. Establishing the relationship: making contact

As in all communication situations, it is very difficult to get to the heart of the matter if the people involved do not know each other, if they know each other but have not seen each other for a long time, or if they have met before in a different context. This stage, whose duration varies according to the situation, allows the implementation of the conditions of trust and listening necessary for the ensuing discussion.

The coach also pays special attention to the layout of the location of the interview. It should be held in a calm and private place. It is preferable to avoid ‘formal meeting’ or ‘hierarchical meeting’ layouts. The layout of the location therefore facilitates the atmosphere of the meeting.

2. Establishing the framework

This involves clarifying the framework of the interview by explaining the why, what and how:

- Why are we here? Who made the request? Who are we (person being coached and coach)? What type of interview is this (advice, support or evaluation)?
- How many times will we meet? How long will the interview last?
- What are the operational rules (confidentiality, active participation etc.)?
- What are the objectives for the coaching approach/for the interview?
- How will the interview take place (making contact, framework, analysis of the situation, objectives and solutions, closing and follow-up)?
- How are we going to work (the active role of the person being coached)?

For each of these questions, it is necessary to verify whether there is a shared understanding, or perhaps to consult with the person being coached in order to agree on the objective and the way of proceeding.
3. The analysis process and the solutions to be implemented

- Analyse the problem which is the reason for the coaching from as many angles as possible:
  - Why is the situation a problem? For whom?
  - Who are the stakeholders involved?
  - What are the objective facts? The interpretations of the facts? The associated feelings?
  - What are the difficulties experienced by the person being coached? How does he or she view their role?
  - What solutions have already been implemented? By whom?
  - What are the risks and the opportunities of the situation?

- Solutions

The analysis provides a more comprehensive overview of the problem situation and the crux of the problem. Only with this clarification of the situation can objectives be set and solutions suited to the situation and to the person being coached begin to emerge.

The person being coached must be active during this phase. For each solution mentioned, it is essential for him or her to understand the solution and to support it, since it is they who will have to implement it in the field. Therefore, this process has to be successful, otherwise the implementation will fail. There are several ways to facilitate this stage of defining solutions:
  - respect the pace of the person being coached; do not go faster than them;
  - anticipate the outcomes of the solution by imagining it in its implementation; this allows any obstacles to be anticipated in advance and mitigates anxiety associated with the agreed change;
  - complete the cycle by verifying that the chosen solution meets the requirements of the problem situation and corresponds to the expected criteria for success.

4. The close of the interview

The interview ends with a summary of the interview and a preparation for the future:
  - a summary of the key elements of the interview (objectives, elements of analysis, solutions discussed or chosen, stages of implementation etc.),
  - a commitment regarding the tasks to be carried out after the interview,
  - identifying the information required for any new coaching session.

Sometimes a solution to a problem situation cannot be found after just one interview. An interview may end with a more comprehensive analysis of the situation. This is already a step forward. Generally speaking, it is a good idea to let the person being coached leave the interview with a task, in order to give them an active role and a high level of involvement in the solution to the problem. He or she may also test new ways of doing things or verify elements of analysis, in order to get a change underway as well as the beginnings of a solution.
6.2.3. Why the evaluation interview is different

As with the other types of interview, the stages of establishing the relationship, defining the parameters, the analysis process, the solution and the close of the interview can be customised, but they can also be split in a specific way according to the objective of the interview. The evaluation interview is different in at least two respects: on the one hand, the coach is invited to give his or her point of view formally, and on the other hand, the interview plays a part in verifying that the previously defined objectives have been achieved.

This exchange of points of view is prepared and structured in a specific way.

<table>
<thead>
<tr>
<th>The stages of an evaluation interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Arouse interest</strong> and test the receptiveness of the person being coached</td>
</tr>
<tr>
<td>2. <strong>Encourage expression</strong> from the point of view of the person being coached</td>
</tr>
<tr>
<td>3. <strong>Present one's objective perspective</strong></td>
</tr>
<tr>
<td>4. Prepare a <strong>final summary</strong></td>
</tr>
<tr>
<td>5. <strong>Debrief the interview</strong></td>
</tr>
</tbody>
</table>

1. **Arouse interest and test the receptiveness of the person being coached**

This first phase involves reassuring the person being coached by explaining the context and the objective of the evaluation interview. It also involves being receptive to the reactions of the person being coached and encouraging them to ask questions. The coach answers them in order to begin the evaluation process, having clarified areas of doubt or uncertainties.

2. **Encourage the person being coached to express their point of view**

The coach invites the person being coached to express themselves freely and confidently about how they perceive the achievement of his or her learning and implementation objectives.

The coach helps the person being coached to consider this further, without expressing their own view at this stage, by listening and asking questions.

The coach verifies that all of the aspects related to learning and implementation have been discussed and developed, as well as any stumbling points. The coach encourages the person being coached to ask questions and answers them.

3. **Present one's objective perspective**

The coach presents his or her perception in an objective way, with facts and concrete examples.

The coach ensures that the person being coached understands everything. The coach encourages the person being coached to ask questions and answers them.
4. Prepare a final summary

The coach and the person being coached identify their points of agreement and disagreement. The coach establishes a link between the points of view and records the differences.

Any stumbling blocks are dealt with in such a way so as to elicit proposals for solutions.

The coach sets new objectives by stimulating the commitment of the person being coached.

The coach and the person being coached determine indicators to measure the achievement of objectives.

The coach and the person being coached plan any follow-up interviews.

5. Debriefing the interview

The coach and the person being coached debrief on:
- the commitment of the person being coached with respect to the content,
- the procedure used,
- the relationship.
6.3. Some coaching techniques

It is not easy to encourage someone to express themselves during a coaching interview. The person being coached may not know where to start his or her reflection or how to explain the situation. The role of the coach is to help them to express themselves at several levels, namely:

- the facts,
- the interpretations of the situation,
- feelings about the situation.

Several techniques can be useful for conducting a coaching interview in a constructive way, and for encouraging expression and reflection by the person being coached.

<table>
<thead>
<tr>
<th>Coaching interview techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open questions</td>
</tr>
<tr>
<td>Closed questions</td>
</tr>
<tr>
<td>Neutral questions and expressions</td>
</tr>
<tr>
<td>The open, neutral and closed questions session</td>
</tr>
<tr>
<td>‘Reflection’ statements</td>
</tr>
<tr>
<td>Signs of interest</td>
</tr>
<tr>
<td>Breaks and silences</td>
</tr>
<tr>
<td>Reformulation</td>
</tr>
<tr>
<td>The summary</td>
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</tbody>
</table>

- **Open questions**

Open questions provide an opportunity for the person to express themselves and to say what he or she thinks and feels. They allow a wide variety of answers to be obtained on a variety of subjects.

‘What do you think about…?’

‘How do you see the situation?’

The questions must be phrased in a neutral way. The objective is to obtain information, rather than to give one's point of view.

Avoid: ‘I'm sure that that wouldn’t work. What do you think?’

- **Closed questions**

Closed questions allow answers to precise questions to be obtained, as well as facts to be specified. They therefore begin with ‘who’, ‘when’, ‘where’ and ‘how many/how much’.
‘How many training sessions have you given this semester?’

Closed questions also allow a response to a choice to be obtained.
‘Would you like to receive support from a junior or senior colleague?’

Closed questions also allow a commitment to be obtained with a ‘yes’ or a ‘no’.
‘Do you think you could carry out these three training sessions within the allotted time?’

- Neutral questions and expressions

Neutral questions and expressions are used to provide more information about a specific aspect which is being discussed.
‘Tell me why you prefer this customer.’

They also allow for a natural flow of information.
‘Tell me more about what worries you.’

- The open, neutral and closed questions session

At the beginning of an interview, open questions are more appropriate as they trigger a flow of information. Conversely, a series of closed questions would make the interview seem like an interrogation.

In the middle of an interview, it is appropriate to use neutral questions and expressions in order to keep the discussion going and gather more information on specific subjects.

At the end of an interview, the use of closed questions allows a discussion on a specific subject to end by finalising the information needed. It is always useful to specify why a session of closed questions is used, so as to avoid the interrogation effect.

- ‘Reflection’ statements

‘Reflection’ statements allow the coach to verbalise a feeling expressed by the person being coached, and to show that the feelings are seen and understood. They are therefore expressed more easily and the person being coached may be able to move past these strong feelings.
‘You seem really worried…’
‘I can see that it delights you…’

The coach should, however, be careful not to overuse ‘reflection’ statements, and instead use them to confirm awkward feelings which hinder professional discussion.

- Signs of interest

Expression can be elicited using techniques other than questioning. Verbal and non-verbal signs of interest encourage the person to talk about his or her ideas.
‘Hmmm… Go on… I see…’ (Acquiescence, nodding etc.).

The coach should, however, be careful not to overuse these signs, and instead use them only when he or she understands, otherwise the discussion becomes too confused.
Similarly, the coach must ensure that they are not interpreted as an expression of support for what is being said.

- **Pauses and silences**

Although pauses and silences can be very negative, they nevertheless have an important function in an interview. They allow the person to assimilate what has just been said and to think about it. They also ensure that the person does not feel pressurised. They also give the coach time to think.

However, useful silences should not be confused with awkward silences, which should be managed during an interview.

- **Reformulation**

Rephrasing the words used by the person being interviewed is essential, as it enables the coach to verify that he or she has understood what has been said, and to verify the meaning. The reformulation may be of verbal expressions, as well as of non-verbal attitudes or behaviour.

‘Do you think that there was an inadequate number of participants in the training session?’

‘You seem nervous about this idea…’

Reformulation allows the person being coached to feel understood and listened to.

- **The summary**

The summary is aimed at summarising the key points. It allows part of the reflection to be concluded. It can be full or partial.

‘During this interview, we first identified the problem situation. It is described as follows… We then defined an objective for this interview, which is… We then analysed the situation. This allowed us to highlight… For next time, you have decided to test… Do you agree with this summary?’

‘As regards the question of contacting customers, you have listed three stages: the first will be…, the second will consist of… and the third…’
Chapter 6
Communication and the coaching relationship

Personal notes

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..................................................................................................................
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..................................................................................................................
..................................................................................................................
Chapter 7

Document resources: where to find information

7.1. Information management ................................................................. 130
7.2. Major internet services ................................................................. 140
7.3. Organising an online document search ........................................... 145
7.1. Information management

Professional information management on a daily basis involves various technical and critical operations, such as:

- **identifying** information (what do I really need?);
- **gathering** information (where will I find it? in what form?);
- **processing** information (in which form should it be used?);
- **storing** information (where should it be saved? How can it be found again easily later on?);
- **keeping information up to date** (how can the latest version be available so that I am working with relevant information?).

This involves working with physical or electronic documents, as well as maintaining networks of human contacts.

We may thus differentiate between **different types of data media**, with a gradual progression from the living to electronic, based on the gradual dematerialisation of information (from the material to the least material, i.e. the virtual):

- the **biological** medium, i.e. the most concrete: this is the human being, expert or novice, and the knowledge which he or she has regarding an issue, a product, a concept etc.
- the **physical** medium (i.e. non electronic): this refers to handwritten notes taken during a training session, a book, a periodical, a newspaper, microfilm in a library etc.
- the **local electronic** medium: this refers to the information on a CD-ROM or another optical medium (e.g. a DVD), i.e. the digital files stored on a computer hard drive, a removable hard disc, magnetic tape, floppy discs or a USB flash drive (e.g. office files, pages scanned from a book, databases, electronic images, films, backup copies etc.): in short, everything which can be viewed locally, i.e. without having to connect a computer to a network.
- the **networked electronic** medium: this is identical to the local electronic medium except that it requires a connection to a physical network (a cable network or a wireless connection linking the computer to the network of other computers from the same organisation, in order to provide access to shared printers or shared files, for example) and user identification;
- the **online electronic** medium: this is the least material of all, and is only accessible if the computer is connected to the ‘network of networks’, i.e. the internet.

The **nature** of the processed information also determines the way the knowledge is managed. This is called ‘knowledge management’. For example, the following information is not processed in the same way:

- pure data (computer code, figures, lists of words and names, value tables, raw statistics) requiring an interpretation. The data will therefore be consulted for reference purposes by a human user (e.g. to find out about a precise dosage in certain circumstances) or will act as instructions for a robot or a computer system;
information (encyclopaedia articles, scientific reports, dictionary entries, minutes of meetings, chapters in this manual etc.) which constitutes published knowledge in order to find information (in the most objective way possible) on a subject and to study it, or to describe a reality. The user’s concern will be to validate the expertise of the author of the information before use.

messages related to communication (publicity, political manifestos, promotional texts, works of art, personal stories etc.) whose phrasing conveys the sender’s intention to actively prompt a reaction from the recipient, sometimes to the detriment of truth or accuracy. The user will therefore have to decipher the ‘tricks’ used by the sender of the message to influence the recipient, before being able to make good use of the proposed information (e.g. a cigarette maker will not always speak objectively about the health risks related to tobacco use).

Therefore, a joined-up approach – both technical and critical – is required for those who wish to be well informed and remain well informed.

In all cases, it is important to work with qualitative information, i.e. information which is:

- Up to date (e.g. Is this the latest list of authorised values for pesticides in this case? Have other political events occurred since this official statement from the ministry of agriculture? Have the rates changed since the publication of this brochure?);
- Accurate (e.g. Has the information been published in an amateur forum or by an expert in the field? Does the author of the information have anything to gain by altering it? Is there another source which enables us to verify this information?);
- Relevant (e.g. Is this the information I need? Is this just noise, i.e. useless search engine results following my search query?);
- In the right format (e.g. Would I be able to read the file to be downloaded from the internet on my computer? Do I have to print all 478 pages of this paper when I only need the bibliography? Can a newspaper article be used as a scientific reference in my report? Is my knowledge of English good enough to understand this article?);
- Sufficient (e.g. Will I know enough about this issue after reading just this periodical article/this letter from a laboratory colleague? What other reliable sources should I consult?).

7.1.1. The biological medium

Definition

Each person possesses knowledge, but it is not always easy to access it. Attending a presentation on a specific subject may be an important source of information (scientific lectures, seminars, online seminars) but a conference is held only at a given moment. Similarly, the comments of someone who has returned from ‘the field’ may be rich in information which is otherwise unavailable, but you would have to meet the person concerned in order to ask him or her questions.

The person who is supposed to have the required information is not always reachable or does not always have the time to answer everybody’s questions. Furthermore, his or her
personal opinion or limited point of view might influence the relevance of the answers, to the detriment of truth and accuracy.

- **Accessing this information**

In order to access information from a ‘biological medium’, there must be contact with the person who has the information.

This contact may be direct (face-to-face dialogue, a course with a trainer, a speech presented at a meeting, an exchange over the telephone or via instant messaging): this is referred to as a synchronous exchange, from the Greek word meaning ‘at the same time’. The advantage of a synchronous exchange is that it often allows the information obtained during questions and answers to be refined.

Failing this, a recording of the person’s report could be listened to, or his or her presentation on television, the internet, an e-learning platform etc. could be viewed. This is referred to as an asynchronous exchange. The advantage of the asynchronous exchange is that its content is already recorded on a medium.

The question remains as to the objectivity of the information provided and its relevancy. The quality of the information received from a person with other sources – human or published information – should be checked, and if necessary supplemented.

### 7.1.2. The physical medium

- **Definition**

Most books and other scientific and professional documents are centralised in documentation centres (or DU: documentation units) or in the libraries of major public and commercial institutions:

- universities each have a central library and the different faculties generally have their own DU;
- many municipal, regional or national libraries sometimes have specialised units;
- commercial companies also try to centralise their documentary resources;
- research centres hold a range of essential documents for their researchers;
- many works can also be found in bookshops, as some specialist bookshops sometimes stock rare books which are not available in libraries;
- publishing houses and press associations may hold very interesting documents in their archives;

We must not forget the works lying dormant on the shelves of many personal book collections. But how can we know ‘who has what’ without maintaining a close network of ‘resource’ colleagues?

‘Printed’ works (books, brochures etc.) are by their very nature published at a specific moment in time (the date of publication is always mentioned in the ‘copyright’ information). Scientific and professional knowledge evolves rapidly and, for this reason, the information provided by a printed medium may be out-dated. It is important to ensure that we have the most recent edition of the medium concerned.
This constraint does have one advantage: the information contained in a published work has always been subject to editing by several people in a process that begins with writing and ends with final publication. It is therefore a priori validated information, which is more reliable than a personal comment in an internet forum, for example.

**Note:**

Major libraries and institutions holding document collections, as well as certain internet stakeholders, are in the process of digitalising their collections. This means that the books which were until now only available in a physical medium are now scanned (photographed) and published online in big 'virtual' libraries. This means that it is possible to find a book (or an excerpt) on the internet via a search engine, to view it, download it or print all or part of it from any computer connected to the internet.

**Accessing this information**

To access this information, you need to go to the place where it is held (documentation unit, library etc.) or contact the organisation which holds the work you want to view in order to ask for it to be sent by post to your home or, if need be, to your organisation's documentation unit.

### 7.1.3. The local electronic medium

**Definition**

It is this medium that offers the easiest way for individuals to store, send and manipulate information. It is referred to in technical terms as mass storage, i.e. these media allow a huge amount of data to be stored at once, either permanently (as on a film DVD or a software CD-ROM, whose content cannot be modified), or temporarily (on a USB flash drive, whose content can be deleted or modified).

The octet (or byte) is symbolised by the letter ‘o’: this is the unit of measurement for the storage capacity on these media. For example:

- kilo octets (1 Ko = 1,000 octets; e.g. one page of text may ‘weigh’ 20 Ko);
- mega octets (1 Mo = 1,000 Ko; e.g. a CD-ROM may store 720 Mo, a DVD, 4.7 Go);
- giga octets (1 Go = 1,000 Mo; e.g. a USB flash drive may store 16 Go);
- tera octets (1 To = 1,000 Go; e.g. a hard drive may contain 1 To of data).

You do not need to be a computer expert to save files (texts, presentations, images, films, databases etc.) on a hard drive or a USB flash drive, or to burn photo or music files on a CD-ROM or a DVD; this is referred to as a write mode use of the medium.
In read mode, i.e. to view files on these media (open a text file, listen to music or watch a film), magnetic (hard drive, floppy disc drive etc.) or optical (CD, CD-ROM, DVD drive, Blu-Ray discs etc.) processes are also used.

The flexibility of their use now allows everybody to save large quantities of information (backup copy of several computers on a single magnetic tape, personal media library on a hard drive etc.), to transfer it from computer to computer (in the past this was done using floppy discs, but now USB flash drives are used) or to view it (full encyclopaedias or periodical archives on a DVD, multimedia training on CD-ROM, films on DVD, music CDs etc.).

Everything may therefore be found on these media which – even when they are removable, such as USB flash drives, DVDs or CD-ROMs – can only be used locally (on a given computer, without connecting it to a network): texts, seminar presentations, databases, catalogues, various documents, photos, games, videos, music etc.

These media are mainly:

1. **Magnetic tape** used in electronic data processing. These are found in cassettes which can be removed from the computer, and are used mainly to make backup copies of computers. They are therefore not directly usable by the public to search for information, as a compatible magnetic tape reader is needed. Certain archives can, however, be accessed this way.

2. **Floppy discs** are also magnetic and removable, and are almost never used nowadays; they are being replaced by USB flash drives and CD(ROM)s.

3. **Hard drives** are the magnetic media with the biggest storage capacity, located inside personal computers. Certain models are removable: they are therefore linked to the computer via a USB cable (cable with a Universal Serial Bus plug: a standard for connecting peripheral devices).

4. **USB flash drives** are small media which can be plugged into a USB port on a computer or another compatible device (stereo, DVD player etc.). They are mini hard drives (with a lower storage capacity) which have the advantage of preserving data even without electricity and contain no mechanical elements, thanks to their ‘flash’ memory. They are very resistant to shocks and mistreatment, and are valuable devices for ‘nomads’ and field participants.
5. **CDs, CD-ROMs** and **DVDs** are optical and removable discs. They are recorded by producers (film or music), and are available everywhere for sale or hire. When sold blank (with no information) they are ready to be written on to (**writable**) or rewritten (**rewritable**) by anyone. They have become essential electronic information media.

- **Accessing this information**

  The information stored in this way can be of two different types: either a person (or you) has saved data on one of these media and therefore needs a compatible reader to access the content and if necessary to modify it; or a publisher has written the data permanently on the medium and, if the same technical requirements are met, the person will have read-only access to it.

  In both cases, the same constraints described above apply with respect to the quality of the information.

  In the case of content published on a given date (i.e. copyright) and which has therefore been subject to editing, the information may also become **obsolete**. In the case of software, dictionaries, antivirus programs and training modules such as the PIP Tool Box, which are installed on a computer (the installation data on a CD-ROM and the usage data on the hard drive), an **update of the information** may be planned by the publisher. It will therefore be provided on a CD-ROM or can be downloaded from the internet, which is more common nowadays.

- **7.1.4. The networked electronic medium**

- **Definition**

  Being of the same nature (databases, texts, spreadsheets, music, photos etc.) and technically identical to the information stored on local media, the data available on a network require the computer to be connected to a **local area network** (or LAN) or a **wide area network** (or WAN).

  (c) **DBCO, CH**

  A network is generally a central computer (the **server**) which contains and distributes the information stored on its hard drives on demand to all computers (the **clients**) which are connected to it and which have the permission to request it. A user and his or her individual computer (e.g. a terminal) must therefore be recognised electronically by the network for access to the server. In order to do this, the user must enter his or her personal **user name** and **password** when asked to do so. The network **administrator** manages access to the central server.

  In a documentation unit or a university library, it is possible, for example, to carry out a search for a work in the bibliographic databases of the institution by using computers made available to users in a consultation room. The user is therefore often requested to
identify him or herself (i.e. declare electronically his or her student number and personal password, for example) before being able to access the information. Once authenticated, the user's computer, i.e. the client, is able to access the databases stored on a central computer, i.e. the server.

- **Accessing this information**

The nature of the medium does not influence the type of information it can contain and all of the previous comments about the quality of the information are also applicable here. The sharing of information on a network mainly concerns the exchange of professional information between colleagues in the same organisation or viewing information at institutions that hold document collections. In both cases, a user name and a password is all that is required to access this data.

### 7.1.5. The online electronic medium

#### Definition

When we talk about information available online, we are mainly referring to data available on the web. As we shall see later, the web is just one of the services offered by the biggest WAN, the network of networks: the internet.

The term network refers to information stored on a server which can be viewed from a client computer. The internet is no exception to the rule. Also note that:

- The internet is a group of servers located throughout the world which are interconnected to form this network of networks (it would be very difficult to determine the postal address of the server consulted while ‘surfing’ the web); the interconnection of all of these servers facilitates an enormous shared storage capacity which is difficult for the human mind to imagine.

- The visible face of the internet, i.e. where we search for documentary resources, is mainly made up of webpages (written in computer languages such as HTML, XML etc.). A page is therefore made up of its content (text and image) and a series of computer instructions which indicate how these contents must be displayed by the browser (computer software such as Mozilla Firefox, Safari, Internet Explorer, Google Chrome etc., which is used to view webpages on your computer monitor or mobile phone display).

- Each webpage has its own address (or URL, for Uniform Resource Locator). This is its ‘postal address’ on the internet (e.g. the address http://pip.coleacp.org corresponds to just one page on the entire internet). It is, however, possible to give addresses which are easier to remember to this same URL, i.e. ‘aliases’, as is the case for the PIP homepage: if you enter www.coleacp.org/pip in the browser's location bar you will be redirected to the above address.
On the page illustrated, in the left margin, ‘Benefit from PIP’ is the name (the visible text) of a hyperlink which sends the visitor to the address (URL) of another page (the target of the link) whose title is ‘How to benefit from PIP’. When the cursor of the user’s mouse moves over a hyperlink, the arrow becomes a small hand with the index finger pointing upwards. The user therefore just has to click on the link in order to display a new page. In addition to the hyperlink, other instructions contained in the code of the page lead to actions triggered by a simple click of the mouse, such as opening messaging software, downloading a file, opening a music video clip, sending a form etc.

One of the most remarkable inventions of the 1990s was the fruit of the work of a Belgian scientist, Robert Cailliau, and a British scientist, Tim Berners-Lee, both researchers at the CERN (CH): the hyperlink. The hyperlink is a computer instruction contained in a page, which tells the browser to display another page. When the user clicks on a hyperlink on a webpage, his or her browser displays another page, in the same window or in a new window. This is how the billions of pages available on the internet servers are interconnected by different hyperlinks, forming a web of links between content which is sometimes stored on servers thousands of kilometres apart.

Most major institutions now transfer their information online (via free access or user authentication through his or her user name and password) or at least the references for these documents (available on request).

The value of the internet is obvious here: it is not necessary to know the actual location of the information or the medium in order to access it. Regardless of whether the document is in New York, Dakar or Gembloux, or whether the user is in Kigali or Bombay, internet access allows us to consult it. This is what the computer revolution is all about.

Accessing this information

The nature of the medium has no influence on the type of information it can contain. The main difference is in the incredible amount of information available via a single medium: the internet.

All of the previous comments regarding the quality of the information are also applicable.
Today, new technologies and new uses are also being developed in the area of information publishing on the internet, referred to as **Web 2.0**. Originally, the information available on the web was the exclusive result of the editorial work of the author of the website being viewed; the reliability of the former allowed you to evaluate the reliability of the published information. The website of a university or a research centre is still intended to provide its visitors with validated and reliable information.

However, with ‘Web 2.0’ a website is now the result of its author's publications and is supplemented by contributions from visitors, without the difference between the two types of contributions necessarily being visible. The information contained in a Web 2.0 webpage is therefore not always verified or validated by its author.

The Web 2.0 approach is in keeping with the **self-regulation of the web**: users who see false information on a page modify it in good faith. With everybody correcting everybody, all of the interventions together should result in a higher quality web. Is this a new utopia?

While **social networks** make intensive use of Web 2.0 technologies, Web 2.0 editorial practices create a problem in terms of the reliability of information.

*During a political debate at the time of the French presidential campaign, one of the two speakers made a flagrant error concerning nuclear energy, and his supporters immediately modified the articles in an online participative encyclopaedia (i.e. Web 2.0) so that the error would become ‘the truth’. Ten minutes later, the supporters of the other party made the opposite modification. A mini ‘encyclopaedia battle’ ensued until the website’s moderator (manager) blocked the article being used as a battlefield.*

This episode clearly demonstrates the risks associated with the Web 2.0 approach. The fact remains that **forums** (webpages which publish dialogues based on a question) and **blogs** (personal webpages published in the form of a logbook) often contain relevant information. It is up to each person to **verify** the information before using it for professional reasons.

Consequently, although the abundance of information available on the internet represents an opportunity, it is necessary for professionals to exercise a **critical mind** if they wish to use it for documentary resources.

In conclusion, documentary research must take into consideration the **nature** of the required documents as well as their **content** in order to determine **where** the document might be found and on which medium. There is little chance of a book on kings and queens of France being found in an agronomic centre!

Furthermore, for a documentation centre, the most important thing is not always the fact of having a document, but of knowing where it can be found:

- for generalist documents, try public libraries,
- for scientific publications, try research centres and universities,
- for rare books, try everywhere(!),
- for a study on a crop protection product, contact the company which makes it or markets it,
- and for comics, try the local bookstore etc.
Finding a document requires logic and experience above all. Therefore, do not forget to ask your colleagues: they may already have found what you are looking for. The internet and its various services therefore offers the ultimate way of finding the required document or simply its location.

Here is an example of the types of document directly available at the Gembloux library (copy of an HTML screen).

**What types of document can be found at the library?**

- **Primary** documents (because they contain the information itself) such as:
  - theses
  - monographs
  - manuals
  - collective works
  - reports
  - periodicals
  - dissertations
  - dictionaries
  - encyclopaedias
  - maps
  - films
  - CD-ROMs

- **Search tools** = secondary documents: catalogues and bibliographic databases on electronic media (CD-ROM, library network and the internet).

- **Access to the internet** = primary or secondary documents: these offer both documents (in a digital format) and search tools (catalogue, bibliographic databases and resources on the internet).

The library cannot hold everything that has been published in its field far from it. This is why a large part of what is available involves finding documentary resources in other libraries in the French-speaking community, in Belgium, in Europe and throughout the world.
7.2. Major Internet services

Many communication tools and channels are available on the Internet: they are referred to as the different Internet services. We will discuss the most common ones, grouped according to functionality (what can be done using the tool) without considering the software required to use it.

7.2.1. Electronic messaging

Electronic messaging is probably the most popular Internet application. Billions of messages are exchanged each day, filling up our electronic mailboxes. Email is the term used to designate these ‘letters’ written using a computer to one or more recipients, who are either the main recipients (‘To’ field), who will receive a copy (‘Cc’ field, meaning ‘carbon copy’) to the knowledge of all the other recipients, or who will receive a blind copy (‘Bcc’ field, for ‘blind carbon copy’) which will not display any of the recipients’ addresses.

In order to be able to send or receive emails, an electronic address is required. The format of these addresses is restricted: aaaaaa@bbbbbb.ccc, where

- aaaaaa is a series of n characters which can only be interrupted by dots, hyphens or underscores (no spaces); this indicates whose address it is;
- bbbbbbb is a series of n characters which can only be interrupted by dots, hyphens or underscores (no spaces); this indicates the domain of the address (e.g. the name of the organisation);
- ccc is a series of a maximum of three characters, indicating the type of domain of the address (.COM for a commercial organisation; .EU for European address; .ORG for a public institution; .SN for a Senegalese domain; .BF for a domain from Burkina-Faso etc.);
- the character @ which separates the two parts of the address stands for the word ‘at’.

It is always possible to send an attachment with an email: this is how your colleague might send you the file you requested, for example. Note that excessively large files may prevent a message from being sent or received.

Today, you can manage your emails with a local email client (such as ‘Outlook’, ‘Mail’ etc.) on your computer, or via a web interface which you can view in your browser from any computer.

It is also possible – on your computer – to gather the addresses of people you would like to send group emails, and to save them as distribution lists which you save in your email client (see above for an explanation of the notions of ‘client’ and ‘server’).
Similarly, you may join the distribution list of a newsletter and therefore automatically receive a copy of each newsletter. You will receive it as a daily, weekly or monthly email, containing hyperlinks to the sender’s website. Major periodicals and news channels often publish newsletters which summarise the day’s news articles. Specialist organisations also do the same.

The power of the ‘electronic messaging’ tool has led to the creation and in many cases (but not all) the adoption of good practice related to how it is used, i.e. netiquette. This includes, for example, limiting blind carbon copies, careful use of upper case letters (which can seem like shouting), the size of attachments, the requirement to be explicit in the subject field of the message, limiting joke emails, blocking group email chains, reporting abuse etc.

Advantages:
- electronic messaging is asynchronous; it is possible to send a message without requiring the recipient to be active at the time it is sent; the sender may even ask for an electronic confirmation of receipt for more important messages;
- it is possible to send attachments with a message: a letter, a photo, an audio document or a short film can be sent this way;
- a group email allows the widespread diffusion of information among groups of people who are interested in the same subject, with a minimum amount of effort (e.g. an assignment report sent to all of the people concerned);
- in the case of newsletters, the information is sent automatically and the user is kept directly informed of the latest news in their chosen field.

Disadvantages:
- sending group emails to recipients who do not wish to receive the messages is called spamming. The messages are referred to as spam. Spam can be advertising, scams or emails from friends who don’t realised that they are overloading your inbox by bombarding you with photos of their holidays and jokes. Most email clients offer the possibility of blocking unwanted senders: their messages will be automatically deleted or sent to the program’s trash folder;
- in the case of newsletters, it is always necessary to be selective, as not all articles in every newsletter are interesting.

7.2.2. Instant messaging

While electronic messaging is asynchronous (see 7.2.1), instant messaging is synchronous: in order to have a conversation, the other person must be connected at the same time and have the same software open (Skype, IRC, MSN Messenger, Yahoo, Communicator etc.). Furthermore, the two users must know the other’s alias in order to be able to begin a discussion. This involves sending each other short messages in plain text. Instant messaging is free; it is referred to as ‘chat’.

An Internet telephony service is often combined with this; it is free from computer to computer, but involves a fee when it is from a computer to a telephone. The latest developments of these tools enable conference calls (a group which has a discussion via
this means) and even video conference calls (a group which has a discussion and can see all of the participants).

### 7.2.3. Subscribing to an RSS feed

It is also possible to subscribe to a regular source of information without having to provide one’s email address and while maintaining full control of your subscription: this is referred to as an RSS (Really Simple Syndication) feed, which is often represented graphically by this icon.

On a webpage, by clicking on this image the user may create a particular type of subscription: each time the page or the website which the user is subscribed to (for example, the homepage of the newspaper *Le Monde*) is updated, a message will appear either in his or her email inbox, or by clicking on his or her browser's RSS icon. This message contains a short text summarising the new information and providing a hyperlink to the page concerned (online).

A user can unsubscribe to an RSS feed with a simple click.

### 7.2.4. Forums and newsgroups

You can join one or more forums and exchange messages with groups of people who are interested in the same subject as you. Some forums group very specific categories of user (doctors, computer specialists, agronomists etc.), while others are open to the general public and people who are simply interested in the forum’s subject.

The quality of the information exchanged in specialist forums is often very good, but some generalist public forums mostly just generate noise (i.e. useless information) if the people in charge of controlling the flow of information and the rules of etiquette (called moderators) do not do their job properly.

Access to these newsgroups takes place via a function of the email client which allows the user to subscribe and to read the news. This resembles reading emails which are sent to all of the members of the newsgroup and not to a specific user.

**Advantages:**

- any question related to the forum’s subject can be asked and one or more interesting answers will generally follow;
- there is no need to know the email address of the person who has the information;
- it is a good place to find contacts;
- as soon as the connection is established, the user may automatically receive all of the news from the different newsgroups to which he or she is subscribed.
Disadvantages:
- the amount of noise generated is sometimes discouraging;
- there are a huge number of forums so the user would have to find the right one
- the user has to be connected in order to write or read messages.

Furthermore, many websites include a questions/answers service for users to discuss various subjects online, depending on the purpose of the website. On a website dedicated to photography you may find a forum for photography enthusiasts to share their experiences, or on the website of a hotel chain you can read the comments posted by previous guests. The major press websites also allow users to have discussions about each published article.

In order to participate in this type of forum the user does not need a program other than his or her browser. The questions, answers and comments are published on the website itself and nothing is sent by email.

Advantages:
- all of the advantages of newsgroups without having to subscribe.

Disadvantages:
- the user has to go to the website concerned each time in order to read the answers, unlike newsgroups (unless he or she has subscribed to an RSS feed);
- the quality of the comments is not always guaranteed.

7.2.5. Websites

Websites are generally understood to be part of the internet (see 6.15). They are collections of Web pages grouped on a website, whose access point is the website’s address (URL). The contents of websites offer hundreds of different types of information and services such as news, online shopping, virtual visits and hotel bookings. On a website, the user can search for information, discover a game and play online, have a discussion with someone, and exchange messages and documents.

Advantages:
- the advantages of Websites depend on the services offered;
- access to billions of pages of various information no matter where they are.

Disadvantages:
- the user has to be connected;
- the quantity of information available makes it difficult to select the truly relevant information and to verify it.
7.2.6. FTP sites

These are websites which specialise in the transfer of documents, where downloadable files are stored. These sites point to remote folders from which documents can be copied locally onto your computer, via the browser.

Today, users of FTP (File Transfer Protocol) services often do not see more than the webpage link which they click on to download a document or any other file.

Initially presented to users as a rather bare tree diagram on a generally unattractive webpage, FTP sites now have web interfaces (their ‘showcases’, to some extent) which are more dynamic and include more information.

These websites are either public or reserved for users who must first log in, and offer effective self-service documentation that is often specialist and well structured.

7.2.7. Information websites and search tools

These are websites which specialise in information research. In the search form presented online, the user enters keywords (avoiding empty words such as ‘a’, ‘some’, ‘which’, ‘who’ etc.) and selects search options (e.g. English results only; only websites from my country etc.): this is the search request. The search engine then presents a list of webpages from the indexed pages which match the search request, by order of relevance. Indexed means: found, submitted to the search engine’s algorithm and stored in an organised manner in an index.

Depending on the types of search offered, this can include:

- selections from websites and/or directories: these are websites which offer selections from websites grouped according to theme, category and subject,
- search engines: offer a simple search using keywords and/or an advanced search with several criteria, based on an indexing of webpages,
- meta search engines: the search is conducted by using one or more search engines,
- metadirectories: websites offering lists of search engines grouped according to content category.

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1 File Transfer Protocol
7.3. Organising an online document search

In order to be able to benefit from an online search for documentation, good use should be made of the search tools available on the internet. The results may be collected and stored systematically on a local medium or network (physical storage of ‘objects’ found: text files, sounds, images etc.). It is also possible to store the addresses in a browser (saving links as favourites or bookmarks, depending on the browser). The information gathered then needs to be updated in order to have the most recent versions. This involves the use of tools, methods and good practice.

As we shall see later, a distinction is always made between:

- **physical objects**: the files themselves, which have a certain size (expressed in Ko/KB, Mo/MB, Go/GB etc.) and contain the data (e.g. the content of the text in an office file, images of a film in a video file etc.) as well as metadata, i.e. the data related to the content of the file (e.g. author, date of creation, category, number of characters, language etc.);
- the **representation** of these objects: generally itself contained in a file, the representation of a series of objects provides structured information on the objects stored in a given perimeter.

By way of example, in a library, the shelves contain the books (the objects), and the library catalogues (their representation) allow us to know (a) whether an object is present in the library and (b) where it may be found. Similarly, an address book represents in a structured way (through its alphabetical ordering of names) a group of physical objects.
In the case of the web, the connection between the object and its representation is made much easier by the hyperlink (see above): in a list of links (e.g. in a page of search results displayed by a search engine, as illustrated above), you just have to click on one of the hyperlinks (representation organised according to relevance) in order to display the object (a webpage).

The search for professional information on electronic media – either local (CD-ROM or an internal database in an organisation) or online (the internet) – therefore always depends on two parameters:

**What result do we wish to obtain?**

- either the *representation* of something, an ‘object’ (e.g. the search for a work in a bibliography will only give its title and bibliographic references, not the work itself),
- or the *object* itself in one of its available forms (e.g. the search for the same work using a search engine on the web will allow us to find either the bibliographic references of the work, or the work itself as a PDF file to be downloaded, for example.

**Which method should be used to obtain this result?**

- either a search via the *selection of criteria* that is increasingly refined (e.g. a category is selected from a list and then a sub-category is selected from this category, and so on, until a list of results is displayed with or without the object of the search); this is the specific method required for exploring thematic directories;
- or a search via a *search query form* based on keywords (e.g. in a search engine, the words ‘food security pip acp’ are entered to find information on the actions carried out by PIP in the field of food security in ACP countries; we therefore obtain a list of addresses of webpages in which these keywords appear); this is the method used for most search engines.

An effective search for information is thus the combined result of a well-phrased search by the researcher exploring a documentary resource, and a well-designed database which is well-populated² by the information provider.

A brief description of the different online search tools is provided below, followed by an introduction to the logic of databases.

### 7.3.1. *(Online) search engines*

A search engine uses a system which is radically different from that of a directory. **Bots** (referred to as *crawlers* or *spiders*) search the web, going from page to page (in fact, from link to link), during which they store the content text of the pages they encounter as well as their characteristics, thus compiling an ‘index’.³ Most of the time, the ‘indices’ of the world’s search engines contain several hundred million Web pages.

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² Another word for ‘stocked’ in the case of a database or a website.

³ An index is an organised collection of data representing Web pages.
The bot returns every so often to the pages it has indexed previously in order to store the most recent version. It therefore 'refreshes its base (or its index)'. When the internet user enters his or her search query (keywords) in the proposed form, the engine will search for occurrences of the word or the expression in its index, i.e. in the content text of the previously stored webpages and in the associated metadata. Once all of the pages containing the requested term have been identified, the engine classifies them in order of relevance, according to an order and a specific algorithm.4

A search engine therefore carries out its searches on webpages, whereas a directory proposes websites. This difference explains why it is absolutely impossible to compare the results provided by the two types of tool. The most well-known search engines today are Google, Altavista, Fast/Alltheweb, HotBot, Northern Light and Voila. But there are many others.

7.3.2. Directories

A directory is a search tool which creates an inventory of a certain number of websites via data profiles which generally include the title, the address (the URL) and a brief description. Each website is listed in one or more categories or sections.

Directories are compiled by humans, referred to as documentalists, who choose the websites and write the data profiles. These tools can therefore be seen as the ‘yellow pages’ of the web. When a keyword is entered in the form, the directory carries out a search for occurrences of this term in the data profiles of the website, and not in the content of the pages of the website in question. This is their most significant difference compared with search engines.

The most well-known directories in France are Yahoo!, Nomade and the Guide de Voila. But there are many others.

7.3.3. Search portals

A search portal is a mixed search tool which offers several sources of information to the internet user in order to carry out more effective searches:

- a directory of websites,
- a webpage search engine.

A search portal – which is often designed to attract the internet user for advertising purposes – increases the sources of information. It often includes an encyclopaedia, news updates, a directory of email addresses, a ‘shopping’ directory etc. In short, it is a search tool which enables a wide choice of different and often complementary sources to be searched.

It also refers to:

- meta search engines: portals specialising in searches through the optional or automatic use of the combined capacity of several external search engines;

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4 An algorithm is a jealously guarded secret calculation used by search engines.
aggregator: site offering a selection of other websites grouped according to category. In general, it displays the websites which are the most popular among internet users. Sometimes a comment is attached to the address of the referenced website;

metadirectories: websites offering lists of search engines grouped according to category.

7.3.4. Good practices in information searching

Below are some examples of good practice when searching for information, inspired by various well-designed teaching websites such as www.educnet.education.fr and www.bibliotheques.uqam.ca.

Distinguish between the different tools and their functionalities
Know what you can ask a (meta) search engine and how to ask it (the syntax of your search query); similarly, familiarise yourself with the categories of directories and how to navigate in their tree structure.

Exercise a critical mind
The motivation of web content publishers is not always purely informative: commercial strategies are rarely synonymous with quality content, commentaries in forums are not always reliable, and nowadays anybody can publish a website without validating the contents of its pages. Look at the URL in order to identify the type of website you are viewing. Confirm the information from forums with other sources. Recognise the intentions of the publisher of the pages you visit; distinguish clearly between opinions (the messages) and valid information for your search.

Organise your link gathering (bookmarks)
All browsers allow the user to save website addresses and to organise them into categories. Consider saving the addresses of reference websites you like. Note the different names given to these bookmarks depending on the browser: e.g. Firefox uses the term bookmarks which are categorised in files, whereas Internet Explorer uses the term favourites and also classifies them in files.

Learn to read URLs
URLs (webpage addresses) are composed of different sections separated by dots. Learn to recognise them (for example, .ac. signifies that the website is published by a university, which would perhaps mean that the contents are more reliable than that of a website whose address contains .com, which signifies that the website is commercial).

Familiarise yourself with search syntax
Each search engine and each database requires a specific search syntax\(^5\) whose logical basis is nevertheless common to all search queries: Boolean operators.\(^6\) Boole identified three simple instructions – used alone or in combination – allowing a dialogue with the computer in order to specify the terms of a search. Each browser indicates how to write Boolean operators in its help menu, namely:

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\(^5\) The way you phrase your search.

\(^6\) Named after George Boole, a 19\(^{th}\) century English logician.
- **AND** includes a term in the search (e.g. search for ‘bean AND Burkina’), sometimes written ‘+’ (e.g. ‘haricot +Burkina’);
- **OR** includes another term which may replace the first (e.g. search for ‘haricot OR cotton AND Burkina’);
- **NOT** excludes a term (e.g. search for ‘bean OR cotton NOT Burkina’), sometimes written ‘-’ (e.g. ‘bean OR cotton -Burkina’).

### Respect the rules

In your message exchanges on the Internet, it is always good to respect certain rules about how to behave; *netiquette*. Netiquette and the respect for *copyright* require you to mention your sources and full references in everything you write.

#### 7.3.5. Updating information

Information found on the internet can quickly become obsolete: the internet changes continuously, new websites are created, old websites disappear and webpages on websites change. It is therefore essential to update documents, bookmarks and references concerning your searches *regularly*.

You will therefore have to use the internet regularly in order to:
- return to the websites where you found your documents and download the updates to these documents;
- update websites stored locally for *offline* consultation;
- carry out searches again in order to verify whether new sources of information or new websites are available;
- read messages received from *newsgroups* and *mailing lists*;
- read the most interesting thematic forums.

You may also verify the validity of your bookmark addresses from time to time, as certain websites may disappear or simply change their address. Ensure that you also update your email address book.

#### 7.3.6. Relational databases

Regardless of the search, it will always involve a request for information (the search *query*) being sent to a database. While the term *database* may call to mind different computer mechanisms for the structured storage of information, the terminology and acronyms used freely by more experienced users may seem intimidating to the novice: DBMS, RDBMS, metadata, column, SQL, attribute, report, query, form, incremental etc.

Nevertheless, all databases follow the same basic logic – tabular logic.  

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7 Netiquette is an informal set of rules, a charter which defines the rules of conduct and courtesy recommended for the first communication media available on the Internet.

8 Logic expressed as a table.
In a table, each line corresponds to a *record* and each column to one of its characteristics. For example, in the case of a database which stores an address book, each record corresponds to a person and the different columns provide information on the person's contact details:

<table>
<thead>
<tr>
<th>Record 01</th>
<th>Surname</th>
<th>First name</th>
<th>Country</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dupont</td>
<td>Samuel</td>
<td>Belgium</td>
<td>Brussels</td>
</tr>
<tr>
<td>Record 02</td>
<td>M'baki</td>
<td>Yasmin</td>
<td>Mali</td>
<td>Bamako</td>
</tr>
<tr>
<td>Record nn</td>
<td>Pattinson</td>
<td>George</td>
<td>United Kingdom</td>
<td>York</td>
</tr>
</tbody>
</table>

Each case is a *field* which must be filled in with one or more *values*, either freely or by respecting formal restrictions (e.g. the field only accepts email addresses or figures as values, with dates or values to be chosen from a dropdown list).

So that the people who populate the database respect the integrity of the database (its internal logic), its designer may allow only certain values in a field. In order to do this, he or she will make a list of authorised values in another table, which will be related to the main table. This is why this is called a relational database.

Thus, in order to avoid a scenario where – in the fifth column of our example – some people write ‘Brussels’, others ‘bruxelle’, ‘Bruxelle’, ‘brussel’ or even ‘brusle’, a table would need to be created listing the authorised city names and present the accepted values via a dropdown list.

Conducting a search in a database therefore comes down to indicating in the database management software which value is accepted for which field (e.g. a search query for all of the surnames from records whose value for the ‘Country’ field is ‘Mali’).

Similarly, with a search engine, the user indicates in his or her request the keywords which he or she would or would not like to appear in the webpages displayed in the answer.

It is therefore important to clearly *identify* what we are looking for before beginning a search in a database or on the web. A well-formulated search often allows us to find unexpected resources among the incredible quantities of information available on the internet. A word to the wise.

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9 The people who enter the contents via a form.
Personal notes

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Most used abbreviations and acronyms
### Most used abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACP</td>
<td>African, Caribbean and Pacific (Group of ACP States that have signed a series of agreements with the EU, called the 'Cotonou Agreements')</td>
</tr>
<tr>
<td>ADI</td>
<td>Acceptable daily intake (in mg/kg bw/day)</td>
</tr>
<tr>
<td>AOEL</td>
<td>Acceptable operator exposure level: Acceptable level for operator exposure when pesticides are applied</td>
</tr>
<tr>
<td>ARfD</td>
<td>Acute reference dose</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service. Registration number for chemical substances</td>
</tr>
<tr>
<td>CCP</td>
<td>Critical control point (under the HACCP method)</td>
</tr>
<tr>
<td>CLP</td>
<td>The CLP Regulation is the name given to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>CMR</td>
<td>Carcinogenic, mutagenic and reprotoxic substances</td>
</tr>
<tr>
<td>CSR</td>
<td>Corporate social responsibility</td>
</tr>
<tr>
<td>DT50</td>
<td>Half-life of a substance in a given soil (in days)</td>
</tr>
<tr>
<td>EC</td>
<td>Emulsifiable concentrate, liquid formulation of a solvent-based pesticide</td>
</tr>
<tr>
<td>ECR</td>
<td>Emerging chemical risk</td>
</tr>
<tr>
<td>EMS</td>
<td>Environmental management system</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency (USA)</td>
</tr>
<tr>
<td>EPPO</td>
<td>European and Mediterranean Plant Protection Organisation</td>
</tr>
<tr>
<td>ETI</td>
<td>Ethical trading initiative</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EVPP</td>
<td>Empty pesticide product containers</td>
</tr>
<tr>
<td>EvRP</td>
<td><em>Evaluation des Risques professionnels</em> (equivalent to HIRA - Hazard identification &amp; risk assessment)</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organisation: UN organisation that addresses food security problems in the world</td>
</tr>
<tr>
<td>FBI</td>
<td>Foodborne illness outbreak</td>
</tr>
<tr>
<td>FLO</td>
<td>Fairtrade Labelling Organizations International (FLO) is an association of various fairtrade labelling initiatives</td>
</tr>
<tr>
<td>FSMS</td>
<td>Food safety management system (see also QMS)</td>
</tr>
<tr>
<td>GAP</td>
<td>Good agricultural practices (set of application conditions that must be defined: dosage, volume, formulation, technique, PHI)</td>
</tr>
<tr>
<td>GHS</td>
<td>General harmonised system (product classification and labelling)</td>
</tr>
<tr>
<td>GLP</td>
<td>Good laboratory practices</td>
</tr>
<tr>
<td>GMO</td>
<td>Genetically modified organism</td>
</tr>
<tr>
<td>GPP</td>
<td>Good phytosanitary practices (set of rules to follow to avoid contaminating the operator or the environment and to avoid residues)</td>
</tr>
<tr>
<td>HACCP</td>
<td>Hazard analysis critical control point: system that defines, assesses and prevents food safety problems</td>
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<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>ICB</td>
<td>Independent (third-party) certification body (see TPC)</td>
</tr>
<tr>
<td>ICM</td>
<td>Integrated crop management or integrated production</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organisation</td>
</tr>
<tr>
<td>INERIS</td>
<td>Institut National de l'Environnement industriel et des risques, the French national institute for industrial environment and hazards</td>
</tr>
<tr>
<td>INRS</td>
<td>Institut National de Recherche et de Sécurité, the national research and safety institute for the prevention of occupational accidents and diseases in France</td>
</tr>
<tr>
<td>IOBC</td>
<td>International Organization for Biological and Integrated Control of Noxious Animals and Plants</td>
</tr>
<tr>
<td>IPM</td>
<td>Integrated pest management</td>
</tr>
<tr>
<td>IPPC</td>
<td>International Plant Protection Convention</td>
</tr>
<tr>
<td>ISO</td>
<td>International Organization for Standardization. ISO is the international standards body whose members are the national standards institutes of 149 countries</td>
</tr>
<tr>
<td>IUPAC</td>
<td>International Union of Pure and Applied Chemistry</td>
</tr>
<tr>
<td>JECFA</td>
<td>Joint FAO/WHO Expert Committee on Food Additives</td>
</tr>
<tr>
<td>JHA</td>
<td>Job hazard analysis</td>
</tr>
<tr>
<td>Kd</td>
<td>Adsorption coefficient (measures how tightly the pesticide binds or sticks to soil particles)</td>
</tr>
<tr>
<td>LCA</td>
<td>Life cycle assessment (or analysis)</td>
</tr>
<tr>
<td>LD$_{50}$</td>
<td>Lethal dose 50 (mg/kg bw)</td>
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<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>LOAEL</td>
<td>Lowest observed adverse effect level. Lowest concentration causing an adverse effect. See also NOAEL - no observable adverse effect level.</td>
</tr>
<tr>
<td>LOD</td>
<td>Detection limit</td>
</tr>
<tr>
<td>LOQ</td>
<td>Limit of quantification (also called limit of determination)</td>
</tr>
<tr>
<td>MRL</td>
<td>Maximum residue level</td>
</tr>
<tr>
<td>MSDS</td>
<td>Material safety data sheet</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental Organisation</td>
</tr>
<tr>
<td>NOAEL</td>
<td>No observable adverse effect level</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Cooperation and Development</td>
</tr>
<tr>
<td>OEL</td>
<td>Occupational exposure limits</td>
</tr>
<tr>
<td>OHSAS</td>
<td>Occupational Health and Safety Assessment Series</td>
</tr>
<tr>
<td>OSHA-EU</td>
<td>European Agency for Safety and Health at Work</td>
</tr>
<tr>
<td>PCB</td>
<td>Polychlorinated biphenyls, chlorinated aromatic compounds (209 congeners)</td>
</tr>
<tr>
<td>PCR</td>
<td>Polymerase chain reaction, a technique to amplify gene sequences</td>
</tr>
<tr>
<td>PHI</td>
<td>Pre-harvest interval (number of days to wait before harvesting)</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted no-effect concentration, for aquatic species.</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal protective equipment</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Definition</td>
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<tr>
<td>PPNU</td>
<td>Non-usable pesticide products (outdated or obsolete)</td>
</tr>
<tr>
<td>PS</td>
<td>Private, or voluntary, standard</td>
</tr>
<tr>
<td>PTMI</td>
<td>Provisional tolerable monthly intake</td>
</tr>
<tr>
<td>PTWI</td>
<td>Provisional tolerable weekly intake</td>
</tr>
<tr>
<td>QMS</td>
<td>Quality Management System (see also FSMS)</td>
</tr>
<tr>
<td>REACH</td>
<td>Regulation (EC) No 1907/2006 on chemicals (1 June 2007)</td>
</tr>
<tr>
<td>SA 8000</td>
<td>A standard considered as the first private international reference standard concerning the rights and respect of the individual on the job</td>
</tr>
<tr>
<td>SDS</td>
<td>Safety data sheet: technical note detailing all the dangers of a product, means of prevention and emergency measures, also see MSDS</td>
</tr>
<tr>
<td>TDI</td>
<td>Tolerable daily intake</td>
</tr>
<tr>
<td>TEQ</td>
<td>Toxic equivalent</td>
</tr>
<tr>
<td>TNC</td>
<td>Tesco Nature's Choice: a TESCO private standard</td>
</tr>
<tr>
<td>TPC</td>
<td>Third-party certifier (see ICB)</td>
</tr>
<tr>
<td>TRV</td>
<td>Toxicological reference value</td>
</tr>
<tr>
<td>TWI</td>
<td>Tolerable weekly intake</td>
</tr>
<tr>
<td>UL</td>
<td>Oil-based concentrated solution, liquid pesticide formulation</td>
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<tr>
<td>UN</td>
<td>United Nations Organisation</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>UNCED</td>
<td>United Nations Conference on Environment and Development</td>
</tr>
<tr>
<td>UNECE</td>
<td>The United Nations Economic Commission for Europe</td>
</tr>
<tr>
<td>WG</td>
<td>Water-dispersible granules, solid pesticide formulation</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
<tr>
<td>WP</td>
<td>Wettable powders, solid pesticide formulation</td>
</tr>
<tr>
<td>WTO</td>
<td>World Trade Organisation</td>
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</tbody>
</table>
Bibliographical references
Bibliographical references


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1. PRINCIPLES OF HYGIENE AND OF FOOD SAFETY MANAGEMENT
2. TRACEABILITY
3. RISK ANALYSIS AND CONTROL IN PRODUCTION
4. OPERATOR SAFETY AND GOOD CROP PROTECTION PRACTICES
5. REGULATIONS, NORMS AND PRIVATE STANDARDS
6. TECHNIQUES IN COMMUNICATION
7. FOUNDATIONS OF CROP PROTECTION
8. TECHNIQUES OF TRAINING
9. SUSTAINABLE AND RESPONSIBLE PRODUCTION
10. BIOLOGICAL CONTROL AND INTEGRATED CROP PROTECTION
11. ETHICAL PRODUCTION
12. ORGANIC FRUIT AND VEGETABLE PRODUCTION IN ACP COUNTRIES