UNIT -1

The word "communication" has been derived from a Latin word 'communicare' which means 'sharing'. Communication is, indeed sharing; sharing of ideas and feeling between two more persons. Communication is a two-way affair which aims at passing on or receiving a specific piece of information.

**Technical communication**

Technical communication is a means to convey scientific, engineering, or other technical information. Individuals in a variety of contexts and with varied professional credentials engage in technical communication. Some individuals are designated as technical communicators or technical writers. These individuals use a set of methods to research, document, and present technical processes or products. Technical communicators may put the information they capture into paper documents, web pages, computer-based training, digitally stored text, audio, video, and other media. The Society for Technical Communication defines the field as any form of communication that focuses on technical or specialized topics, communicates specifically by using technology or provides instructions on how to do something. More succinctly, the Institute of Scientific and Technical Communicators defines technical communication as factual communication, usually about products and services. The European Association for Technical Communication briefly defines technical communication as "the process of defining, creating and delivering information products for the safe, efficient and effective use of products (technical systems, software, services)"

Whatever the definition of technical communication, the overarching goal of the practice is to create easily accessible information for a specific audience.

# Q. What are the features of technical writing (Communication)?

A. Written communication is a powerful medium in all walks of life. The scientists, engineers, researchers and doctors write reports and prescriptions which are different from general writing. Some important features of technical writing are mentioned below:

1. **Use of familiar and easy words:** In professional and technical writing, instead of the abstract words, familiar words should be used. Technical writing does not require unessential words. The writer should not use too many words where few would do since unnecessary talk will divert the attention of the writer as well as of the reader from the main point.
2. **Use of clear sentences:** The writer should place the main idea at the outset. He should follow normal word order-subject-verb-object. The sentences must be clear in terms of its sense.
3. **Use of sentences of moderate length**: Experts are of the opinion that sentences should be of moderate length. Too much short of too much long sentences make the writings either too simple or too difficult. Generally 12-15 words should be put in a sentence
4. **Use of active voice:** Most of the sentences should be written by using active voice rather than passive voice. Only when the object (work) is having more importance and the subject does not have any importance; passive voice can be used.
5. **Avoid inaccurate expressions:** Precision and accuracy are two important features of a technical writing. Inaccurate expressions lead to obscurity that will ultimately mar the purpose of a technical writing.
6. **Logical division of paragraphs:** In order to make a technical document clear and meaningful, thoughts should be properly arranged into different paragraphs. A paragraph is generally defined as a unit of thought hence a single idea must be conveyed in a paragraph. Just as the usage of the grammatical principles and the rules of punctuation are necessary for coherence in a professional document so is the arrangement of ideas in different paragraphs.

## Q. Difference between General and Technical (Professional) Communication (Writing)

Short stories, dramas, poems, essays, novels etc. are some of the forms of general communication. Reports, applications, research papers, articles are some of the forms of technical communication. Technical and general communications are different from each other from various points of view. Some basic differences between technical and general communication are as follows:

|  |  |
| --- | --- |
| **Technical Communication** | **General Communication** |
| Purpose is to inform and impart information. | Just to entertain the people |
| Technical Communication is based on data and facts. | General Communication is based on imagination and fantasy |
| Style is accurate and precise | Style is poetic, decorative and bombastic |
| Language should be simple | Extravagance and pompous words are used |
| Is for specific audience/reader | Is for general audience/reader |
| Technical vocab is used | General vocab is used |
| It follows a systematic pattern; start with introduction, in the mid- discussion are made and at the end conclusion is drawn | It does not have a systematic pattern, it can start with end and the rest of activities can be shown in flash-back. |

**Q. What are the elements of communication ?**

**What is the process of Communication?**

The elements of communication are mainly three:-

1. Sender 2. Message 3. Receiver 4. Channel/Medium

Encode

Sende

Receiver

Sende s

Channe

age

Mes

Feedback (Response)

Decode

The writer or the communicator conveys the message. He /she encodes (selects the relevant information which is to be send) the message it to the reader. The receiver decodes (understand the information which is received) the message and responds (send the feedback) to the sender.

The transmission of the receivers respond to the sender is called feedback. Feedback is very important for effective communication. The process of communication cannot be complete until feedback is taken.

# Origin and Scope of Technical Communication:

The efforts of Royal society in 1660 promoted the scientific researches, later the outbreak of the industrial revolution in 18thcentury brought revolution in the field of technical communication. Today, technology such as the internet, e-mail, voice-mail etc. allow people to work faster, better and also at cheaper cost. It gave the path for global collaboration.

## Q. Describe Language as a tool of communication.

Whatever an individual visualizes thinks or looks through the thought process in his/her mind carry images and memorizes these experiences, which shape our ideas and influence our thoughts and actions, the moment we experience something new we alter our viewpoint. Hence individuality is the sum of all these myriad experiences, this is the reason people have varied new points. Language is used by the people to give shape to their experiences but language too is subject to error and many a times leads to misunderstanding. Language is essentially a means of communication among the members of a society. In the expression of culture, language is a fundamental aspect. It is the tool that conveys traditions and values related to group identity.

# Q. Write in brief the purpose of technical written communication.

A. The main purpose of technical communication is to make technology more useful and meaningful. It serves the primary communication link between technology and its uses. It is a central factor in the engineering knowledge society where technocrats and professionals are facing new communication challenges.

Killingworth describes the three basic purpose of technical writing – to inform, to instruct, to persuade. The first and foremost purpose of all technical writings is to inform.

1. ***To Inform-***In government or semi-government offices, schools and hospitals, hospitals, people have to supply and also receive information. A research should know how to prepare the documents, giving the information about the result of the experiment, similarly, a mechanical engineer has to furnish the information about the operation of a new machine.
2. ***To Instruct:***The technical writers give instructions for using equipment and alsofor performing duties. For e.g. The consumers are instructed how to use a new product, the medical practitioners are directed how to use a machine.
3. ***To Persuade:*** Technical writing aims at persuading the readers. A technical writer, for instance, may prepare a document to persuade readers to do certain things.

# Dimensions/Flow of Technical Communication

# Communication within a business can involve different types of employees and different functional parts of an organization. These patterns of communication are called **flows**, and they are commonly classified according to the direction of interaction: downward, upward, horizontal, diagonal, external.

# When leaders and managers share information with lower-level employees, it’s called ****downward**,**or **top-down communication**. In other words, communication from superiors to subordinates in a chain of command is a downward communication. This communication flow is used by the managers to transmit work-related information to the employees at lower levels.  Ensuring effective downward communication isn’t always easy. Differences in experience, knowledge, levels of authority, and status make it possible that the sender and recipient do not share the same assumptions or understanding of context, which can result in messages being misunderstood or misinterpreted. Creating clearly worded, unambiguous communications and maintaining a respectful tone can facilitate effective downward communication.

**Upward communication** is the transmission of information from lower levels of an organization to higher ones; the most common situation is employees communicating with managers. Managers who encourage upward communication foster cooperation, gain support, and reduce frustration among their employees. The content of such communication can include requests, estimations, proposals, complaints, appeals, reports, and any other information directed from subordinates to superiors. Upward communication is often made in response to downward communication; for instance, when employees answer a question from their manager. In this respect, upward communication is a good measure of whether a company’s downward communication is effective.

The availability of communication channels affects employees’ overall satisfaction with upward communication. For example, an open-door policy sends the signal to employees that the manager welcomes impromptu conversations and other communication. This is likely to make employees feel satisfied with their level of access to channels of upward communication and less apprehensive about communicating with their superiors. For management, upward communication is an important source of information that can inform business decisions. It helps to alert management of new developments, levels of performance, and other issues that may require their attention.

**Horizontal communication**, also called lateral communication, involves the flow of messages between individuals and groups on the same level of an organization, as opposed to up or down. Sharing information, solving problems, and collaborating horizontally is often more timely, direct, and efficient than up or down communication, since it occurs directly between people working in the same environment. Communication within a team is an example of horizontal communication; members coordinate tasks, work together, and resolve conflicts. Horizontal communication occurs formally in meetings, presentations, and formal electronic communication, and informally in other, more casual exchanges within the office.

When there are differences in style, personality, or roles among coworkers, horizontal communication may not run smoothly. According to Professor Michael Papa, horizontal communication problems can occur because of territoriality, rivalry, specialization, and simple lack of motivation. Territoriality occurs when members of an organization regard other people’s involvement in their area as inappropriate or unwelcome. Rivalry between individuals or teams can make people reluctant to cooperate and share information. Specialization is a problem that occurs when there is a lack of uniform knowledge or vocabulary within or between departments. Finally, horizontal communication often fails simply because organization members are unwilling to expend the additional effort needed to reach out beyond their immediate team.

**Horizontal communication**, also called lateral communication, involves the flow of messages between individuals and groups on the same level of an organization, as opposed to up or down. Sharing information, solving problems, and collaborating horizontally is often more timely, direct, and efficient than up or down communication, since it occurs directly between people working in the same environment. Communication within a team is an example of horizontal communication; members coordinate tasks, work together, and resolve conflicts. Horizontal communication occurs formally in meetings, presentations, and formal electronic communication, and informally in other, more casual exchanges within the office.

When there are differences in style, personality, or roles among coworkers, horizontal communication may not run smoothly. According to Professor Michael Papa, horizontal communication problems can occur because of territoriality, rivalry, specialization, and simple lack of motivation. Territoriality occurs when members of an organization regard other people’s involvement in their area as inappropriate or unwelcome. Rivalry between individuals or teams can make people reluctant to cooperate and share information. Specialization is a problem that occurs when there is a lack of uniform knowledge or vocabulary within or between departments. Finally, horizontal communication often fails simply because organization members are unwilling to expend the additional effort needed to reach out beyond their immediate team.

# C:\Users\AnjaliSingh\Desktop\corporate-communication-in-business-19-638.jpg

**Diagonal communication** is the sharing of information among different structural levels within a business. This kind of communication flow is increasingly the norm in organizations (in the same way that cross-functional teams are becoming more common), since it can maximize the efficiency of information exchange. The shortest distance between two points is a straight line. Diagonal communication routes are the straight lines that speed communications directly to their recipients, at the moment communication is necessary. Communications that zigzag along horizontal and vertical routes, on the other hand, are vulnerable to the schedules and availability of the individuals who reside at each level.

Another type of communication flow is **external**, when an organization communicates with people or organizations outside the business. Recipients of external communication include customers, lawmakers, suppliers, and other community stakeholders. External communication is often handled by marketing and sales. Annual reports, press releases, product promotions, financial reports are all examples of external communication.

The Technical English has multifarious aspects such as listening, speaking, reading, writing, grammar, vocabulary etc. the four basic English skills namely listening, speaking, reading and writing are very important for our academic and professional progress as we carry out all these

activities in our every day academic or professional life.

# Reading:

Reading is defined as a cognitive process that involves decoding symbols to arrive at meaning. The reading is of different types:

* 1. Intensive Reading
  2. Extensive Reading
  3. Critical Reading

**Intensive Reading**: To read intensively is to completely deconstruct a text, with the goal of absorbing as much meaning from it as possible. This is done by taking a text, and systematically looking up every word, phrase, or collocation that you do not understand.

This is an activity that requires great mental effort and focus. Because of this, the learner who engages in intensive reading must be careful to follow specific guidelines, or else risk boredom and burnout.

Specifically, if you wish to read a text intensively, you must take care to read texts that are interesting and short, to read only for brief periods of time, and to do so when you have the most mental energy.

# Extensive Reading

To read extensively is to simply read as much as possible, without concerning oneself with the minutia of meaning and the occasional unknown word. This is done by reading for large swaths of time, and looking up words only when you deem it absolutely necessary to your understanding of the text.

# Critical Reading:

Critical reading is a more ACTIVE way of reading. It is a deeper and more complex engagement with a text. Critical reading is a process of analyzing, interpreting and, sometimes, evaluating. When we read critically, we use our critical thinking skills to QUESTION both the text and our own reading of it.

# Reading Comprehension

Reading comprehension refers to the ability to understand information presented in written form. While this skill usually entails understanding textbook assignments, articles in newspapers and journals, various business documents, reading passages given in competitive examinations etc.; one’s level of reading comprehension skills will affect even one one’s interpretation of directions, such as ‘what to do’ and when to do’ that appear on certain documents such as instruction manuals, puzzles, etc. hence it is important to strengthen one’s skill in comprehending various texts. One needs to understand the difference between factual and inferential comprehension, to know why one is unable to interpret certain texts, one should also try and assess one’s ability to comprehend the entire text through some tests.

# Reasons for Poor Comprehension

The reason for lack of understanding could be situational, depending on the type of reading matter, the subject of the material and your mental or physical state. Not all failures in all contexts can be attributed to the same factor. For example, inability to understand a biology text may be due to vocabulary problems or unfamiliar technical jargon, while failure to comprehend a mathematical text may be conceptual, or lack of understanding of the fundamental concepts. The main reasons for poor reading comprehension are:

* Inability to understand a word.
* Inability to understand a sentence.
* Inability to understand how sentences relate to one another.
* Inability to understand the information fits together in a meaningful way (organization).
* Lack of interest or concentration

Therefore, it is helpful for you to d3evelop a number of strategies in order to deal effectively with different situations.

**Improve Comprehension Skills:** Improved reading comprehension skills can positively impact many facets of a student’s academic performance. Students who have effectively read and understood reading assignments are better prepared for class, leading to improved class participation and more accurate and complete notes. Performance in exams and quizzes could greatly improve as students become more proficient and effective readers. Their interest in a subject is often fostered when they understand the reading assignments. In addition, as students gain proficiency in reading, self-esteem improves.

Similarly, professionals also read a lot of material related to their work, and it is important for them to have good reading comprehension skills.

The following are some of the ways in which comprehension skill can be improved:

* + Read a variety of materials. Do not limit yourself to textbooks only.
  + Read a fairly long portion of the material. It would be difficult to assess reading comprehension basedon one or two paragraphs. Try to read an entire section or chapter instead.
  + Circle unknown or unfamiliar words as you read.
  + After reading, recall as much of the4 information as possible. Jot down points if you like. Then check the accuracy and completeness of your recollections. If the main ideas are presented in a

particular order, see if you can recall the structure.

* + Consider how interesting the subject matter is and how much you already know about the subject.
  + Answer questions about the material after reading it.

# Technical Writing

Technical writing is a type of writing where the author is writing about a particular subject that requires direction, instruction, or explanation. This style of writing has a very different purpose and different [characteristics](http://grammar.yourdictionary.com/style-and-usage/characteristics-of-technical-writing.html) than other writing styles such as creative writing, academic writing or business writing.

# Tips for Good Technical Writing

Regardless of the type of document which is written, technical writing requires the writer to follow the properties of knowing their audience, writing in a clear, non-personal style and doing extensive research on the topic. By including these properties, the writer can create clear instructions and explanations for the reader.

* + Know your audience. An expert in the field will understand certain abbreviations, acronyms, and lingo that directly applies to such a field. The novice will not understand in the same manner and, therefore, every detail must be explained and spelled out for them.
  + Use an impersonal style. Write from a third person perspective, like a teacher instructing a student. Any opinions should be omitted.
  + The writing should be straightforward, to the point, and as simple as possible to make sure the reader understands the process or instruction. This at times may appear as simply a list of steps to take to achieve the desired goal or may be a short or lengthy explanation of a concept or abstract idea.
  + Know how to research. Gather information from a number of sources, understand the information gathered so that it can be analyzed thoroughly, and then put the information into an easy to understand format to instruct those who read it. The more inexperienced your audience, the more information you will need to gather and explain.
  + Be thorough in description and provide enough detail to make your points; but, you also have to consider that you need to use an economy of words so that you do not bore your reader with gratuitous details.

A good technical writer can make a difficult task easy and can quickly explain a complex piece of information.

## Q. What are the requisites of a good paragraph/Technical/ Professional Communication? Discuss in brief?

The requisites of good sentence writing in a technical writing are:

1. Clarity
2. Accuracy
3. Brevity
4. Precision
5. Simple and Unbiased Language
6. Objectivity

As a technical writing needs to be purposeful, precise, and reader oriented, it is important to compose sentences that are clear, cohesive, concise and result oriented.

*Clarity and Accuracy*: These are essential for good sentence writing. Inappropriate, sloppy, loose and awkward sentence can never make effective writing. It is important to learn, to write correct and effective sentence in order to compose a technical write up.

*Brevity:* It is must and the soul of good writing one must try to be as brief as possible. Every sentence should give maximum information in the minimum number of word possible.

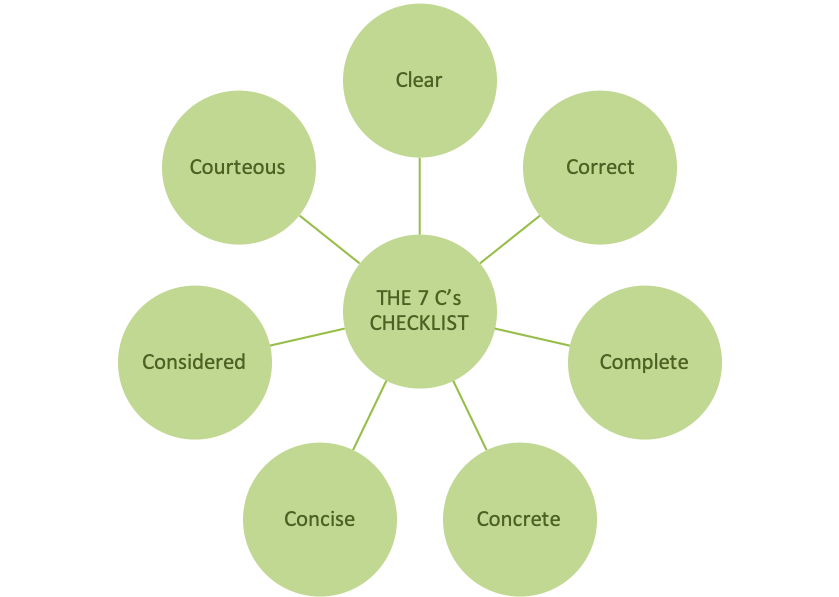
*Precision:* Precision is the art of summarising. Precision in the use of word and phrases leads to effective sentence writing. Moreover, in order to write good sentences one should choose appropriate sentence patterns, avoid awkward sentence structure, sentence fragments and avoid fused sentence.

*Simple and Unbiased Language:* A good technical writing/paragraph is written in simple, unbiased language. It is a document of practical utility; hence, it should be free from various forms of poetic embellishment such as figure of speech. It should be clear, brief and grammatically correct.

*Objectivity:* A good technical writing/paragraph should always attain its objectivity.

## The 7 C’s of Communication

The seven C’s of communication is a list of principles that you should ensure all of your communications adhere to. Their purpose is to help ensure that the person you’re communicating with hears what you’re trying to say. The seven C’s are: clear, correct, complete, concrete, concise, considered and courteous.



### Clear

There are several stages to clarity.

Firstly, it’s important to be **clear** about the purpose of the message you’re delivering. The recipient should be made aware of why they are receiving the message and what you’re trying to achieve by delivering it. If there are multiple goals, each should be laid out separately.

Secondly, it’s essential that the content of the communication is itself clear. You should avoid jargon, use simple language, use simple structures and focus on the core points of your message.

### Correct

It’s essential that both the factual information and the language and grammar you use are correct. If your audience spots errors in either, they will be distracted and your credibility will be greatly reduced. This will reduce the effectiveness of your communication.

Some communications simply must be correct, clear and concise.

### Complete

Completeness is often one of the most important of the 7 Cs of communication.

When creating a message, it’s important to give the recipient all of the information they need to follow your line of reasoning and to reach the same conclusions you have. This level of detail will be different in different situations, and you should adjust your communications accordingly.

In addition, you should make things as easy as possible for the recipient. For example, if you are issuing a “call to action”, provide explicit guidance on that action. Increasingly it’s common to include things like hyperlinks in written communications or to attach FAQs, both of which help audiences access a complete set of information while also ensuring that core communications focus on core messages.

### Concrete

When shaping your communication you must ensure that you are specific and that the logic and messages that you’re using fit together, build on each other and support each other. Your arguments should be based on solid facts and opinions from credible sources and you should share irrefutable data to support your argument.

It may be important to help bring the solid nature of what you’ve created to life for your audience through examples that show the relevance of your messages for them as individuals.

### Concise

When communicating messages of this nature it’s important to stick to the point and keep your messages short and simple. Don’t use 10 words if you can use five. Don’t repeat your messages.

The more you say, the more risk there is of confusion. Avoid that risk by focusing solely on the key points you need to deliver.

### Courteous



People are not always courteous.

You can increase the effectiveness of your communications by being polite and showing your audience that you respect them. Your messages should be friendly, professional, considerate, respectful, open and honest.

To help ensure you are courteous, you should always use some empathy and consider your messages from the point of view of the audience.

### Considered & Coherent

The last of the 7 Cs of communication is considered or coherent. If your communications are not coherent they will not be effective. To help make sure your communications are considered and coherent you should have a logical flow and your style, tone and language should be consistent throughout.

In addition to making sure that each communication you issue is coherent within itself, you should also ensure consistency of message when delivering multiple communications.

The seven C’s of communication form a useful checklist for when you want to convey a message or a set of information to an audience.

They are, however, less useful for more emotive, persuasive and rhetorically anchored communications. Their focus on detail, concision and clarity help ensure that your audience understands the key points of what you want to say, but provides little guidance on how to emotionally engage with your audience.

We think the 7 C’s are a useful tool for written and spoken communication in many instances. We think they’re particularly suited to email communications whose purpose is to keep people informed, or to one on one communications which are fairly transactional in nature.