

Course: Technical communication and expression (TCE).

Reminder:

Overview on Technical Communication and Expression.



Prerequisite (المكتسبات القبلية)

- Understanding the meaning and the utilization of communication in the scientific community.
- Having a background about the General technics of communication and expression.
- Attend the course of TCE in the first year of nature science and life / common core first and second semester (S01&S02).

Key words: Communication, sender, receiver, message.

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Introduction

Communicating effectively will benefit you in every **aspect of your life** . مجالات الحياة . Good **communication skills** مهارات التواصل can help you to build stronger relationships علاقات متينة , become a **better leader** قائد متميز , and **achieve your goals** تحقيق أهدافك .

Good communication skills are also essential for **leadership** القيادة . Leaders need to be able to clearly communicate their vision and goals to their team members. They also need to be able to listen to **their team members** أعضاء فريقه ' **Giving feedback and resolve conflicts** حل المشاكل .

Effective communication is essential for **scientific teamwork** عمل جماعي في المجال العلمي . When team members feel comfortable communicating with each other; they are more likely to **collaborate** تبادلا الأفكار and **share ideas** الشراكة .

Overall, effective communication is a critical component of successful scientific teamwork. By investing in developing their communication skills, scientists can improve the effectiveness of their teams and achieve better results.

If you are not able to communicate effectively, it will be difficult to lead others successfully. You may also have trouble building relationships and achieving your goals.



Quote. “Communication is the solvent of all problems and is the foundation for personal development.” -Peter Shepherd.

1. Definition and Types of communication.

1.1. Definition of the Communication process.

Communication is **sending** ارسال and **receiving** استقبال information between two or more people. Communication is derivative from the Latin word “**Communis**”; which means **share**. The person sending the message is referred to as ‘**The sender**’ المرسل , while the person receiving the information is called ‘**The receiver**’ المستقبل (Figure 01).

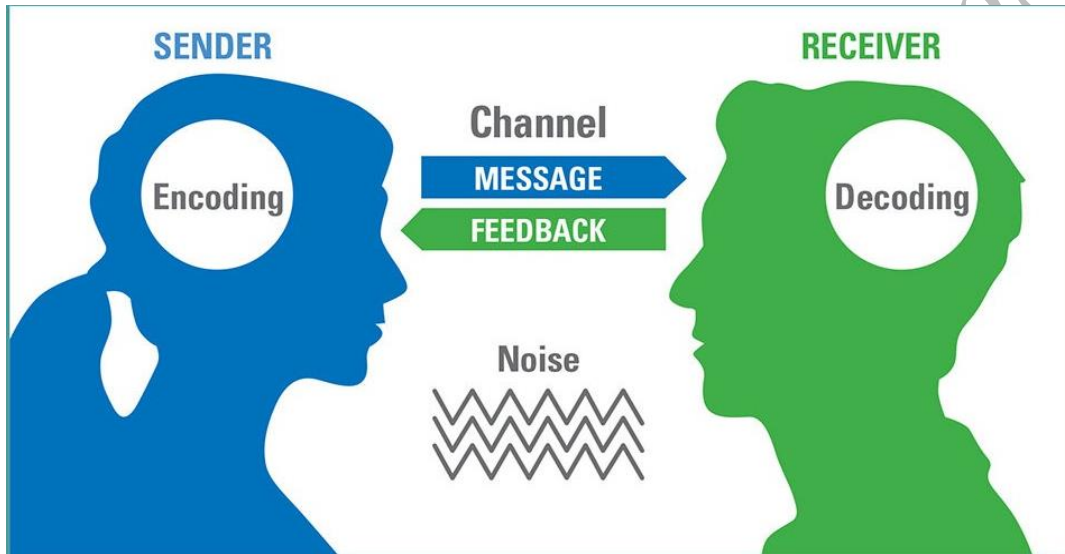


Figure 01. Communication model sender_receiver

A **communication process** عملية التواصل begin with the sender transmitting a message through a **channel** قناة to a receiver. The receiver gets the **message** الرسالة and provides the sender with **feedback** رد فعل.

It contains seven elements: Sender, Encoding التشفير , Message, Channel, Receiver, Decoding ترجمة الشفرة , and Feedback (Figure 02).

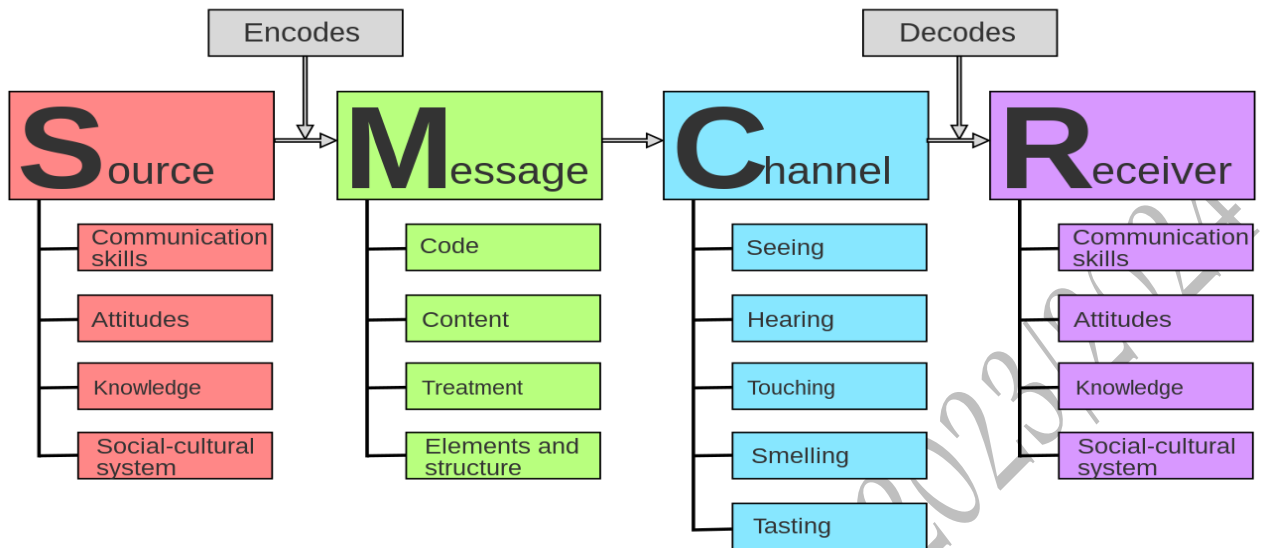


Figure 02. A Descriptive schema of Communication process elements.

1.2.Types of communication.

There is four principle types of communication, classified based on the category of the used channel in each type.

1.2.1. Non-Verbal Communication الاتصال غير اللفظي

Nonverbal communication refers to any form of communication that is not transmitted through spoken word. It can include body language, facial expressions, gestures, and posture see example **Figure 03**.



Figure 03. Facial expressions

1.2.2. Verbal Communication الاتصال اللفظي

Verbal communication is any form of communication that occurs through spoken word. Its key strength is that it tends to be perceived as a trusted and authentic form of communication generally consist of face-to-face interaction, see example **Figure 04**.



Figure 04. Face-to-Face Job Interviews.

1.2.3. Written Communication الاتصال الكتابي

Written communication involves the use of words, sentences, and paragraphs encoded in text in order to communicate, see example **Figure 05**.



Figure 05. e-mails and letters.

1.2.4. Visual Communication الاتصال المرئي

Visual communication means the transfer of information to a person in a format that can be read or viewed. It is considered as the transmission of information and ideas using symbols and imagery, such as tables, photos, videos, and diagrams, see example **Figure 06**.



Figure 06. watching Videos or Animations.

2. Rules for good communication.

In order to gain effective skills in communication, some rules have to be followed during a conversation:

- **Be clear and concise** الوضوح و الاختصار . State your ideas clearly and directly, and avoid using jargon or overly complicated language.
- **Be an active listener** الانصات بتمعن . Pay attention to what the other person is saying, and ask clarifying questions, and avoid interrupting. Listen more than you talk.
- **Be respectful of others 'opinions'** احترام وجهات النظر المختلفة . Even if you disagree with someone, it is important to be respectful of their right to their opinion.
- **Be open to feedback** متفتح لأي ردة فعل . Be willing to listen to feedback from others and use it to improve your communication skills.
- **Be adaptable to different communication styles** قابلية التكيف مع كل أنواع الاتصال . People communicate in different ways, so it is important to be able to adapt your communication style to the person you are speaking to.
- **Be mindful of your audience** احترام المستوى العلمي و الفكري للجمهور المستقبل . When you are communicating with your classmates, professors, or other university staff, it is important to consider your audience by answering three main questions in order to adapt your communication to your audience to ensure that your message is clear and understood.

- What is their level of knowledge on the topic?
 - What are their interests?
 - What are their needs?
- **Be professional** المهنية و الاحترافية . Even though you are a student, it is important to be professional in your communication, by respecting three main rules :
- Avoid slang,
 - Use proper grammar and spelling,
 - Be respectful of others' time.
- **Be prepared** التحضير القبلي لموضوع المحادثة_ . When you are giving a presentation or participating in a class discussion, it is important to be prepared by:
- Doing research in your topic,
 - Organizing your thoughts,
 - Practicing your presentation.
- **Be yourself** كن نفسك و ليس على طبيعتك . The best way to communicate effectively is to be yourself. Don't try to be someone you're not. People will be able to tell if you are being genuine, and they will be more likely to trust and connect with you.

3. The Impact of effective communication in scientific Teamwork.

An effective communication can improve scientific teamwork :

- **Build Trust and Empathy** بناء حيز الثقة و التعاطف بين أعضاء الفريق :

When team members feel comfortable communicating with each other, they are more likely to trust each other and be open to sharing their ideas. This can lead to a more collaborative and productive work environment.

- **Define Roles and Responsibilities** تحديد المهام و المسؤوليات :

Effective communication can help to ensure that all team members understand their roles and responsibilities. This can help to avoid confusion and conflict, and it can also lead to more efficient teamwork.

- **Enhance activities coordination and information share**

التنسيق وتحديث تقنيات نشر المعلومة بين أعضاء الفريق

Effective communication is essential for coordinating team activities and sharing information. This can help to ensure that everyone is on the same page and that work is progressing smoothly.

- **Ensure conflicts resolution and problems** التكفل بحل المشاكل والعراقيل

Effective communication can help to resolve conflicts and problems in a constructive way. This can help to maintain a positive team environment and ensure that the team is able to stay focused on its goals.

TCEIII By IMENE HAMADOU 2023/2024