



P10

Do You Get It?

E365 – Aviation Human Factors

SCHOOL OF
ENGINEERING

Communication

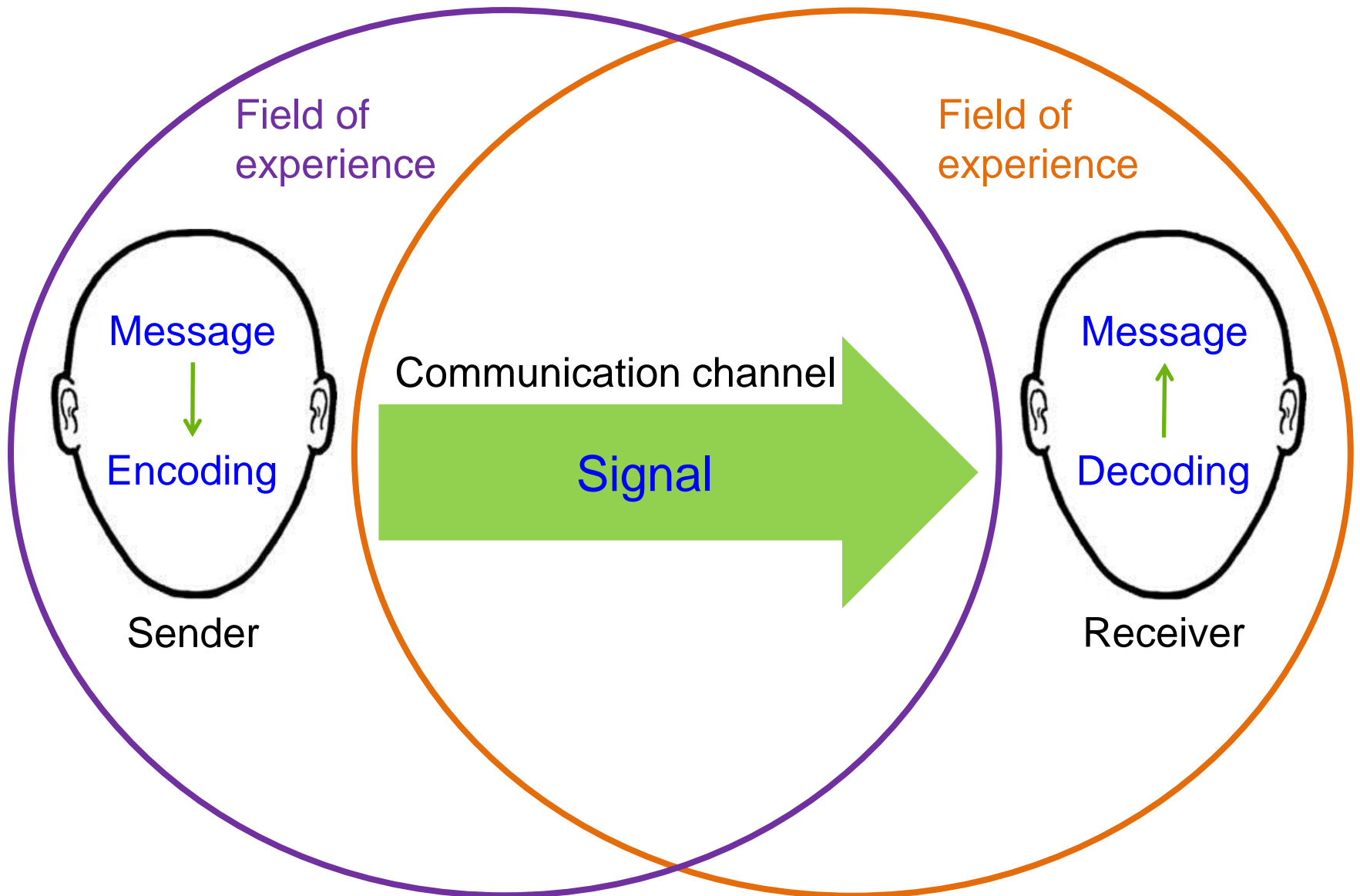


- Communication can be defined as a process by which a transmission of information takes place between individuals through a common system of symbols, signs, or behaviours.
- A source or sender with a concept in mind encodes a message, transmits it through a channel or medium of communication to a receiver, who then decodes the message
- Sender
 - the creator of a thought who has meaning about a concept. This source could be a person, corporation, organization, country, or any other entity that presents a message.
- Receiver
 - the person or persons who get the message from the sender.



- Encoding
 - the process of crafting words, gestures and other linguistic signs that will allow a message source to express his or her thought in some sensible way.
 - Encoding determines the type of communication and produces the signal.
- Decoding
 - the reverse process of encoding. In decoding, the receiver takes the words, gestures and other linguistic signs and interprets them to recreate the original thought.
- Communication channel
 - To allow the successful transmission of the signal.
 - Natural (such as sound waves and light waves)
 - Technological (such as telephone, radio, internet, etc)

Schramm's model



Types of communications



- Verbal – relating to or in the form of words
 - Oral/spoken
 - Auditory signal: voice, public address, radio transmissions etc.
 - Written: handwritten, type written, printed
 - Visual signal: Snail mail, email, notices, logbooks, notes etc.
- Nonverbal – every other form that is not verbal
 - Graphics, symbols, artifacts
 - Body language (Kinesics), appearance, haptics (touching), olfactics (use of smells)
 - Vocalics (paralanguage: accent, loudness, tempo, pitch, cadence, rate of speech, nasality and tone)
 - Proxemics (social use of space in communications)
 - Chronemics (use of time), environment
 - Synchrony (amount of coordination in people's behavior when their nonverbal cues are in sync with one another. Some examples include mirroring, mimicry, or behavioral meshing)

Types of communications



- Formal communication
 - more rule bound
 - more centered on the speaker getting some kind of result.
 - instances of symbolic non-verbal communication, such as the wearing of business attire in order to appear professional.
- Informal communication
 - interpersonal communication.
 - rule bound by the social norms of those communicating but there is much more room for the speaker to be free in what he or she says.
 - less tied to specific ends
 - in many cases, it takes place simply for the speaker to express what they think and feel about anything in particular, and the speaking is undertaken as an end in itself. It is a much more emotionally involved form of communication, in large part because there is less emphasis on symbolic non-verbal communication and more emphasis on saying what one really feels.

Work logging and recording



- Critical aspect of communication within aviation maintenance.
- Inadequate logging or recording of work has been cited as a contributor to several accidents.
- Always necessary to keep record of work up-to-date just in case job has to be handed over
- Manual and electronic
 - Information systems
 - Work cards
 - Logbooks

Communication between teams



- Usually occurring at shift handover, it will involve passing on written reports of tasks from one shift supervisor to another.
- Written reports and warning flags/placards provide a record of work completed and work yet to be completed, and provide traceability.
- Information communicated at shift handover ensures continuity, and will include:
 - Tasks that have been completed;
 - Tasks in progress, their status, any problems encountered etc.
 - Tasks to be carried out;
 - General company and technical information.

Communication problems



- Lack of communication
- Poor communication
 - **Sender/Encoding:**
 - Semantic noise is an impediment in the communication process because of ineffective use of language.
 - slurred speaking, jargon, accent, words with varying connotations, inaccuracies in translation.
 - **Receiver/Decoding:**
 - Internal noise refers to the inability of the receiver to focus on the message.
 - being too tired to concentrate, too hungry to pay attention.
 - **Field of experience:**
 - The smaller the overlap of the fields of experience of the sender and receiver, the higher the chances of mismatch between the encoding and decoding processes.
 - Disagreement in languages, different culture, different perceptions etc.

Communication problems



- **Communication channel:**
 - Mechanical noise (also called channel noise) is associated with the vehicle of mediated communication.
 - smudged ink on a printed page, static in a shortwave radio station, graininess in television reception.
- Environmental noise (or external noise) is an impediment that interrupts the receiver's ability to properly hear a message.
 - crowd chatter, blaring radio while studying.

Effective communications



- Make message relevant to receiver
- Reduce message to simplest terms
- Organize message into series of stages
 - Send part of the message and ensure correct feedback before continuing
- Decide with whom you want to communicate
 - Different stakeholders require different levels of communication
- Decide best type of communication to use
 - Media, richness, speed and affordability
- Be flexible in communication style/channel
 - Sometimes it is necessary to put message across in different manner to enable understanding

Learning Objectives



- The process of communication
- Types of communications
- Problems in communications
- Effective communications