

CUET · HOME SCIENCE · CLASS XI · CODE 315

Media and Communication Technology

CUET unit: Communication, Extension and Media (Human Ecology and Family Sciences Part I)

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Snapshot

- Defines communication as a process of thinking, observing, understanding, analysing, sharing and transmitting feelings/ideas, derived from the Latin word **communis** meaning "common".
- Classifies communication on four bases — type of interaction (one-way / two-way), levels (intra-personal, inter-personal, group, mass, intra- and inter-organisational), means/modes (verbal, non-verbal), and number of senses involved.
- Explains the SMCRE model of the communication process — Source, Message, Channel, Receiver and Effect (feedback).
- Distinguishes traditional media (Jatra, Ramleela, Tamasha, folk songs, puppetry) from modern media (radio, TV, internet, mobile, satellite) and lists nine functions of media.
- Explains communication technology, its cable-based vs wireless classification, and modern technologies (micro-computers, video text, e-mail, interactive video, teleconferencing, Bluetooth) — high CUET yield because of factual, definitional content.

Detailed Notes

2.1 Core concepts

Communication and Extension, along with Mass Communication and Public Relations, forms one of the five HEFS fields. Communication is not merely a personal skill but a public-health, development and social-change tool — directly relevant to Indian extension programmes such as ICDS, Anganwadi, Saakshar Bharat, Doordarshan's farm and family programming, and the modern Digital India / Jan Aushadhi outreach.

- **Concept of communication:** It is the process of thinking, observing, understanding, analysing, sharing and transmitting feelings to others through diverse mediums; the word stems from the Latin **communis** meaning "common" — effective communication creates a shared understanding between communicator and receiver (NCERT §6.1, p. 75).
- **Classification by type of interaction:** **One-way** (receiver cannot reciprocate immediately — speeches, lectures, sermons, radio, TV, internet searches); **Two-way**

(parties exchange ideas silently or verbally — mobile chat, baby's cry to mother) (NCERT §6.1 A, pp. 75–76).

- **Classification by levels:** Intra-personal (communicating with oneself, e.g., mental rehearsal before an interview); Inter-personal (face-to-face with one or more — most effective due to proximity and instant feedback); Group (more than two persons, participatory, uses audio-visual aids); Mass (multiplying messages by mechanical device to large, heterogeneous, anonymous audiences — radio, TV, newspapers, magazines, satellite; feedback is slow, cumulative, expensive and delayed); Intra-organisational (within an organisation, two-way at same level and one-way across levels); Inter-organisational (between organisations for cooperation, e.g., Govt of India with UNICEF/USAID/UNDP) (NCERT §6.1 B, pp. 76–78).
- **Classification by means/modes:** **Verbal** — auditory means like speaking, singing, tone of voice; an individual spends about 70 per cent of active time communicating verbally (listening, speaking, reading aloud). **Non-verbal** — gestures, facial expressions, posture, eye contact, touch, para-language, writing, clothing, hair styles, architecture, symbols, sign language (e.g., smoke signals used by some tribal people) (NCERT §6.1 C, p. 79).
- **Classification by number of senses involved:** People retain ~10% of what they read, 20–25% of what they hear, 30–35% of what they see, 50%+ of what they see and hear, and 90%+ of what they see, hear and do — involvement of more senses makes learning more clear and permanent (NCERT §6.1 D, p. 79).
- **SMCRE Model:** Six elements arranged in a cycle — Source (communicator/originator/sender), Message (information/ideas/content), Channel (tools/medium), Receiver (audience), and Effect (feedback / audience response); described by "Who says, what, to whom, when, in what manner, under what circumstances and with what effect" (NCERT §6.1, pp. 80–82, Figure 2).
- **Types of channels:** Inter-personal communication channels (individuals and groups) and mass media communication channels (satellite, wire-less and sound waves) (NCERT §6.1, p. 82).
- **Definition of media:** Media is the means that uses various methods of communication for disseminating and sharing ideas, thoughts, feelings, innovations and experiences; mass media is always meant for heterogeneous, anonymous and large audiences (NCERT §6.2, p. 83).
- **Traditional media:** Folk theatre/drama — Jatra (Bengal), Ramleela & Nautanki (Uttar Pradesh), Bidesia (Bihar), Tamasha (Maharashtra), Yakshagana & Dashavatar (Karnataka), Bhavai (Gujarat); folk songs — Baul & Bhatiali (Bengal), Sna & Dadaria (MP), Duha & Garba (Gujarat), Chakri (Kashmir), Bhangra & Gidda (Punjab), Kajri, Chaiti & Allha (UP/Bihar), Powda & Lavni (Maharashtra), Bihu (Assam), Charans & Bhaatt (Rajasthan); puppetry — string puppets **Sutradharika** (Rajasthan, Gujarat) and **Chhaya Putli** (shadow puppets in southern parts) (NCERT §6.2, pp. 83–84).

- **Modern media:** Radio, satellite television, modern print media, films, audio cassette and compact disk, cable and wireless technology, mobile phone, video film and video conferencing (NCERT §6.2, p. 84).
- **Nine functions of media:** Information, Persuasion/Motivation, Entertainment, Interpretation, Transmission of values, Education or training, Coordination, Behavioural change, Development (NCERT §6.2, pp. 84–85).
- **Communication technology:** Various technologies developed and used to handle information and aid communication — includes hardware, organisational structures and social values; data may be analogue (electronic signals) or digital (NCERT §6.3, p. 87).
- **Classification of communication technologies:** **Cable (land) based** — cheaper, less complicated (landline telephone, PC without internet); **Wireless** — less infrastructure but more expensive (radio, microwave and satellite wireless telephony, Bluetooth in mobile phones and computers) (NCERT §6.3, p. 87).
- **Radio & TV milestones:** Radio commands a universal audience by geographical spread, income, education, age, sex and religion. Television was introduced in India in 1959 primarily to impact education and promote rural development; the first TV transmitter was acquired by Pij village in Gujarat (NCERT §6.3, pp. 86–87).
- **Modern communication technologies:** Micro-computers (microchip-based), Video text (electronic text from central computer to home TV via telephone/cable, interactive), Electronic mail (electronic surface mail), Interactive video (combination of computer and video, multi-media), Teleconferencing (interactive group communication for geographically dispersed participants). Bluetooth is a low-cost, short-range RF link transmitting voice and data, up to 8 times the speed of parallel/serial ports, through solid non-metal objects (NCERT §6.3, pp. 87–89).

Four extensions add depth. First, the classification by levels (intra-personal → inter-personal → group → mass → intra-organisational → inter-organisational) maps onto a 'concentric rings' model of communication scale. Intra-personal sits at the centre (the individual self talking to itself); inter-personal is one-to-one or small face-to-face; group is small to medium; mass is large heterogeneous anonymous audiences via mechanical multiplication; intra-organisational governs internal flows within a single organisation; inter-organisational handles flows between organisations such as the Indian government and UNICEF. Remember that 'organisational' levels are not redundant with 'group' — they are organisational in the sociological sense (formal entities), not numerical.

Second, in the verbal-vs-non-verbal mode classification, the 70% figure for verbal time pairs with the fact that non-verbal cues (gestures, posture, eye contact, para-language) often carry more affective weight than verbal content — which is why Anganwadi workers are trained extensively in body language and folk-song interaction in addition to spoken Hindi/regional language.

Third, in the SMCRE model, 'feedback' (the E in SMCRE — Effect) is what distinguishes successful communication from mere transmission. Mass media historically had slow,

cumulative and expensive feedback; modern social media has compressed this loop dramatically — a context CUET items can exploit to test whether students see the model as a static formula or as a dynamic cycle.

Fourth, traditional Indian folk forms include Jatra (Bengal), Ramleela/Nautanki (UP), Bidesia (Bihar), Tamasha (Maharashtra), Yakshagana/Dashavatar (Karnataka), Bhavai (Gujarat), Baul/Bhatiali (Bengal), Bihu (Assam), Bhangra/Gidda (Punjab), Lavni/Powda (Maharashtra), and puppetry (string Sutratharika in Rajasthan/Gujarat; shadow Chhaya Putli in southern India). These regional listings are CUET match-the-following gold. Modern media include radio, satellite television, mobile, internet, video conferencing — and the cable-based vs wireless distinction in §6.3.

Television in India deserves committing to memory. TV was introduced in India in 1959, primarily for educational and rural-development objectives, and the first TV transmitter was acquired by Pij village in Gujarat. SITE (Satellite Instructional Television Experiment) of 1975-76, INSAT and Doordarshan's growth followed; these are the standard Indian backdrop. The nine functions of media — Information, Persuasion/Motivation, Entertainment, Interpretation, Transmission of values, Education/training, Coordination, Behavioural change, Development — should be memorised in order, since CUET frequently tests which is **not** listed.

2.2 Definitions to memorise

Term	Definition	Page
Communication	Process of thinking, observing, understanding, analysing, sharing and transmitting feelings/ideas through diverse mediums; from Latin communis meaning "common"	75
One-way communication	Receiver receives information but cannot reciprocate immediately (e.g., TV, radio, lecture)	75
Two-way communication	Two or more parties exchange ideas silently or verbally (e.g., mobile chat)	75–76
Intra-personal communication	Communicating with oneself; on-going mental process (e.g., mental rehearsal before interview)	76
Inter-personal communication	Sharing thoughts with one or more in face-to-face situation; most effective due to proximity and instant feedback	76–77
Mass communication	Process of multiplying messages with the help of any mechanical device and disseminating to masses; audiences are large, heterogeneous, anonymous	77
Media	Means that uses various methods of communication for disseminating and sharing ideas, thoughts, feelings, innovations, experiences	83
Verbal communication	Auditory/verbal modes — speaking, singing, tone; ~70% of active time spent verbally	79

Term	Definition	Page
SMCRE Model	Communication model with Source, Message, Channel, Receiver, Effect (feedback)	80
Communication technology	Technologies developed and used to handle information and aid communication; analogue or digital	87
Bluetooth Technology	Low-cost, short-range radio frequency (RF) link transmitting voice and data, 8× speed of parallel/serial ports, through solid non-metal objects	88
Teleconferencing	Interactive group communication system for geographically dispersed/physically distant people	89
Non-verbal communication	Communication through gestures, facial expression, posture, eye contact, touch, para-language, writing, symbols	79
Source	Communicator / originator / sender of message in SMCRE	80
Message	Information / ideas / content transmitted in SMCRE	80
Channel	Tools / medium that carry the message	80
Receiver	Audience / decoder of message in SMCRE	80
Effect / Feedback	Response of audience completing the SMCRE cycle	80
Mass media	Means meant for heterogeneous, anonymous and large audiences	83
Jatra	Traditional folk theatre of Bengal	83
Nautanki	Traditional folk theatre of Uttar Pradesh	83
Tamasha	Traditional folk theatre of Maharashtra	83
Bhavai	Traditional folk theatre of Gujarat	83
Yakshagana	Traditional folk theatre of Karnataka	83
Bidesia	Traditional folk theatre of Bihar	83
Sutradharika	String puppetry of Rajasthan & Gujarat	84
Chhaya Putli	Shadow puppetry of southern India	84
Pij village	Site of India's first TV transmitter (Gujarat)	87
Television introduction in India	1959	87
Analogue signal	Electronic signal type used by older communication tech	87
Digital signal	Modern computer-encoded signal type	87

2.3 Diagrams / processes to remember

- **Figure 1: Communication System among various Organisations** — Government of India linked to Govt ministries (MoE, Ministry of Women & Child Development) and to international agencies (UNICEF, USAID, UNDP) and Indian NGOs (p. 78).
- **Figure 2: The SMCRE Model of Communication** — Source → Message → Channel → Receiver, with "Effect of Communication (Feedback)" as a return arrow (p. 80).
- **Sense-retention table (p. 79):** Read 10% · Hear 20–25% · See 30–35% · See+Hear 50% · See+Hear+Do 90%.
- **Table 1 (p. 79):** Classification of communication based on number of senses — audio category includes radio, audio recordings, CD players; audio-visual includes television, video films, multi-media.

2.5 Key data / processes table (Indian context)

Item	Value / fact	Source
Latin root of 'communication'	communis (meaning 'common')	NCERT p. 75
Average % of active time in verbal communication	70%	NCERT p. 79
Retention — only read	~10%	NCERT p. 79
Retention — only heard	20–25%	NCERT p. 79
Retention — only seen	30–35%	NCERT p. 79
Retention — seen + heard	50%+	NCERT p. 79
Retention — seen + heard + done	90%+	NCERT p. 79
SMCRE elements	Source, Message, Channel, Receiver, Effect/Feedback	NCERT p. 80
Year of TV introduction in India	1959	NCERT p. 87
First TV transmitter site	Pij village, Gujarat	NCERT p. 87
Number of media functions listed	Nine	NCERT pp. 84–85
Media functions	Information; Persuasion; Entertainment; Interpretation; Transmission of values; Education/	NCERT pp. 84–85

Item	Value / fact	Source
	training; Coordination; Behavioural change; Development	
Cable-based technologies	Landline telephone; PC without internet	NCERT p. 87
Wireless technologies	Radio; microwave/satellite telephony; Bluetooth	NCERT p. 87
Bluetooth speed	Up to 8x parallel/serial ports	NCERT p. 88
Bluetooth medium	Short-range RF, transmits through solid non-metal objects	NCERT p. 88
Levels of communication	6 — intra-personal, inter-personal, group, mass, intra-organisational, inter-organisational	NCERT pp. 76–78
Inter-organisational example	GoI ↔ UNICEF/USAID/UNDP	NCERT p. 78
Indian extension institution (context)	Anganwadi (under ICDS, MWCD)	India context
Indian public broadcaster	Prasar Bharati (AIR + Doordarshan)	India context

2.4 Common confusions / NTA trap points

- **One-way vs Mass:** Mass communication can be one-way but they are not synonyms; mass communication is defined by multiplying messages to large heterogeneous audiences via mechanical devices.
- **Intra-personal vs Inter-personal:** Intra = with oneself (mental rehearsal); Inter = face-to-face with one or more persons. NTA flips these.
- **Traditional vs Modern media:** Puppetry, Ramleela, Jatra, folk songs and even newspapers/charts/posters are listed as traditional; radio, satellite TV, mobile, internet, video conferencing are modern.
- **70% figure** applies to verbal communication (active time), not to retention by senses (which is the 10/20/30/50/90 series).
- **TV introduction year** — 1959 in India; **first TV transmitter** — Pij village, Gujarat. These two facts are often swapped in distractors.
- **SMCRE = five elements with feedback as the fifth;** the NCERT also says "Six elements" by counting feedback separately — the model name has 5 letters but feedback closes the cycle.
- **Verbal includes singing and tone of voice** — NOT only spoken words. Written language belongs partly to non-verbal in NCERT's framing.

- Charts, posters, drawings are listed by NCERT under traditional media; many students wrongly place them in modern media.
- **Group communication ≠ mass communication** — group is small participatory, mass is large heterogeneous via mechanical multiplication.
- **Number of media functions is nine** — NTA distractors often say seven or eleven.

Practice MCQs

PYQ Alignment

This chapter feeds the "Communication, Extension and Media" unit of CUET Home Science (315) and historically contributes 5–8 MCQs per paper. NTA typically asks direct definitional questions (meaning of **communis**, definition of media/communication technology), classification-based items (one-way vs two-way, intra- vs inter-personal, traditional vs modern media), the SMCRE model sequence, sense-retention percentages, the 70% verbal-time statistic, folk-form/State matching, and identification questions on Bluetooth, teleconferencing and the 1959 introduction of TV in India.

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