

TECHNICAL COMMUNICATION

INTRODUCTION TO TECHNICAL COMMUNICATION

—Definition

Technical communication is the exchange of information that helps people understand, perform, or make decisions about technical or specialized subjects. It is purposeful, precise, and audience-oriented.

Examples:

- Manuals and user guides for gadgets
- Medical reports explaining patient conditions
- Engineering blueprints with written specifications
- Policy documents in government

NATURE & SCOPE

- **Practical** – focuses on solving real problems
- **Precise** – avoids unnecessary words, gets to the point
- **Audience-centered** – always considers what the reader or listener already knows and needs to know
- **Multimodal** – can be oral (presentations), written (reports), or digital (emails, websites, apps)

PURPOSES & APPLICATIONS

1. **To inform** – give clear data or facts (research papers, progress reports).
2. **To instruct** – provide step-by-step guidance (manuals, SOPs).
3. **To persuade** – influence decision or action (proposals, business letters).
4. **To document** – keep records for legal, technical, or historical purposes (contracts, logs).

DIFFERENCES FROM OTHER COMMUNICATION

1. Technical Communication

- **Nature:** Factual, functional, precise, professional
- **Purpose:** To inform, instruct, persuade, or document in professional/technical contexts
- **Examples:** User manuals, project proposals, feasibility studies, business reports

2. Casual Communication

- **Nature:** Informal, personal, emotional
- **Purpose:** To socialize, build relationships, express feelings
- **Examples:** Chats with friends, text messages, small talk

3. Literary/Creative Writing

- **Nature:** Imaginative, expressive, artistic
- **Purpose:** To entertain, inspire, or provoke thought
- **Examples:** Poems, novels, short stories, plays

4. Academic Writing

- **Nature:** Formal, research-based, critical, objective
- **Purpose:** To analyze, argue, or present findings in an educational context
- **Examples:** Research papers, essays, thesis/dissertations, scholarly articles

Key Distinctions:

- **Technical communication** is practical and applied (focused on real-world use)
- **Academic writing** is theoretical and analytical (focused on contributing to knowledge)
- **Creative writing** is imaginative (focused on expression/art)
- **Casual communication** is personal (focused on social connection)

ETHICAL, LEGAL, & PROFESSIONAL CONSIDERATIONS

- **Accuracy** – no exaggeration or distortion
- **Honesty** – avoid misleading or incomplete data
- **Confidentiality** – respect privacy of clients, companies, or patients
- **Proper Documentation** – avoid plagiarism by citing sources
- **Compliance** – follow industry standards, safety rules, and laws

COLLABORATIVE WRITING IN PROFESSIONAL SETTINGS

- Common in fields like business, engineering, and IT
- Writers may work in teams → division of labor (data gatherer, writer, editor, designer)
- Requires:
 - Clear role assignment
 - Consistent style/format
 - Use of shared tools (Google Docs, MS Teams, GitHub)

TECHNICAL WRITING

DEFINITION & SCOPE

- **Technical Writing** – specialized form of writing that translates complex information into clear, usable, and structured documents
- It is a subset of technical communication (which includes speaking, visuals, and digital formats)
- In psychology, technical writing means documenting research, assessments, case studies, or treatment plans in a professional, objective, and structured way
- It ensures information is clear, factual, and usable for clinicians, researchers, and students

Common Examples:

- Laboratory reports
- Feasibility studies
- Project proposals
- Safety manuals
- Research articles

Examples in Psychology

- Psychological assessment reports (IQ tests, personality inventories)
- Case studies of clients
- Experimental research articles (APA format)
- Therapy progress notes
- Ethics protocols for psychological studies

DIFFERENCE FROM OTHER WRITING

Type of Writing	Nature	Purpose	Example
Technical Writing	Practical, structured, concise, task-oriented	Inform, instruct, document	User manuals, engineering reports
Creative Writing	Imaginative, symbolic, emotional	Entertain, inspire, provoke thought	Poems, short stories, novels
Academic Writing	Formal, theoretical,	Argue, analyze,	Essays, research

	research-based	contribute to knowledge	papers, theses
Casual Communication	Informal, personal, emotional	Socialize, connect	Texts, chats, conversations

IMPORTANCE IN PROFESSIONS

- **Engineering** – proposals, design specifications, feasibility studies
- **Medicine** – patient case notes, medical research papers
- **Business** – business plans, memos, contracts
- **Law** – case reports, agreements, legal briefs
- **Science** – research documentation, journal articles

Without clear technical writing, industries risk errors, accidents, and misunderstandings.

Importance in Psychology Professions

- **Clinical Psychology** – progress notes, case reports, diagnostics summaries
- **Educational Psychology** – evaluation reports, intervention plans
- **Industrial-Organizational Psychology** – employee surveys, performance appraisals
- **Research Psychology** – APA journal articles, lab reports
- **Counseling Psychology** – treatment plans, client feedback summaries

Example: If a psychological assessment report is vague, it may lead to a misdiagnosis. Technical writing prevents such errors.

QUALITIES OF AN EFFECTIVE TECHNICAL WRITER

1. **Clarity** – No vague expressions. (Ex: “Submit before 3PM vs “Submit soon.”)
 - “Client demonstrates mild anxiety symptoms” vs “Client seems worried.”
2. **Accuracy** – Fact-checked; correct data/figures.
 - Report scores precisely: WAIS-IV IQ = 102 (Average range).
3. **Conciseness** – Gets to the point, avoids fluff.
 - Avoid repeating: “The client is cooperative and willing to respond” → write once
4. **Research Ability** – Skilled at finding credible sources.
 - Locates peer-reviewed studies (APA PsycNet, JSTOR).
5. **Audience Awareness** – Adjusts style for experts vs general readers.
 - A report for a psychiatrist (technical) vs. a feedback letter to parents (simplified).
6. **Organization** – Uses headings, lists, and logical flow.
7. **DSM-5 format**: History → Symptoms → Diagnosis → Treatment Plan
8. **Editing Skill** – Detects grammar, tone, and formatting issues.
 - Ensures APA citations, correct terminology (e.g., “Major Depressive Disorder,” not “depression problem”).

THE LANGUAGE OF TECHNICAL WRITING

> Characteristics

- **Clarity** – Direct and simple (no wordiness).
 - “The subject scored in the 70th percentile on the Beck Depression Inventory.”
- **Conciseness** – Economy of words
 - Instead of “The client has some issues with self-esteem and feels low confidence most of the time,” write “The client reports low self-esteem.”

- **Objectivity** – Neutral, avoids personal opinions.
 - “The client reported auditory hallucinations” (NOT “The client is crazy”).

> Active vs. Passive Voice

- **Active** (preferred): “The engineer designed the bridge.”
- **Passive** (when doer is less important): “The bridge was designed.”

> Word Choice

- Avoid jargon unless the audience is technical.
- Use gender-neutral language (they, chairperson, workforce).
- Eliminate ambiguity: instead of “deliver soon,” say “deliver within 24 hours.”

> Tone, Style, Accuracy

- **Tone** – respectful, formal, professional
- **Style** – consistent formatting (APA, MLA, IEEE, corporate style)
- **Accuracy** – double-check spellings, references, statistics

THE TECHNICAL WRITING PROCESS

> Stages

1. **Pre-writing** – planning: brainstorming, outlining, data gathering.
 - Collect client history, design experiments, outline research.
2. **Drafting** – first version; focus on ideas, not grammar yet.
 - First draft of report (case study, counseling notes).
3. **Revising** – reorganizing, strengthening arguments, adding visuals.
 - Add details from tests, reorganize results and discussion.
4. **Editing** – grammar, punctuation, style consistency.
 - Check APA citations, DSM terminology.
5. **Proofreading** – final polish; minor errors corrected.
 - Fix small typos before final case submission.

> Pre-writing Strategies

- **Brainstorming** – “What possible factors cause exam anxiety in college students?”
- **Outlining** – Research paper sections: Abstract → Method → Results → Discussion.
- **Information Gathering** – Use psychological surveys, observation, interviews.

> Collaborative Writing & Peer Review

- Used in professional projects and reports.
- **Team Roles**: lead writer, researcher, editor, visual designer
- **Tools**: Google Docs, Microsoft Teams, Slack, GitHub
- **Peer review** helps refine content, spot errors, and increase credibility

TECHNICAL WRITING TECHNIQUES

1. Definition

- Explains technical terms
 - **Formal** – precise, dictionary style
 - **Informal** – brief, simple
 - **Expanded** – detailed, with examples and applications

2. Description of a Mechanism

- Explains what something is, its parts, and how it works
- Example: Microscope → parts (lens, stage, light source), function (magnification).

3. Description of a Process

- Step-by-step explanation of how something is done or works.
- Example: Blood circulation → heart pumps → arteries → capillaries → veins → back to heart

4. Classification

- Group items into categories for organization
- Example: Types of Communication → verbal, nonverbal, written, digital.

5. Comparison and Contrast

- Identifies similarities and differences
- Example:
 - Desktop vs Laptop
 - Similarities: both are personal computers
 - Differences: desktop = stationary, upgradeable; laptop = portable, compact

> Examples

1. Definition

- **Formal** – “Cognitive dissonance is the mental discomfort experienced when holding two conflicting beliefs.”
- **Informal** – “Cognitive dissonance is like feeling guilty when actions don’t match values.”
- **Expanded** – Define + explain + give examples from experiments (Festinger’s study)

2. Description of a Mechanism

- How something works (structure + function)
- Example: Memory Mechanism
 - Parts: encoding, storage, retrieval
 - Function: Helps human learn and adapt

3. Description of a Process

- Example: Classical Conditioning
 - Step 1: Present neutral stimulus (bell).
 - Step 2: Pair with unconditioned stimulus (food).
 - Step 3: Conditioned response develops (dog salivates at bell).

4. Classification

- Example: Types of Psychological Disorders (DSM-5)
 - Mood Disorders (Depression, Bipolar)
 - Anxiety Disorders (Phobia, GAD)
 - Personality Disorders (Borderline, Narcissistic)
 - Neurodevelopmental Disorders (ADHD, Autism)

5. Comparison and Contrast

- Freud vs. Skinner
 - Similarity: Both tried to explain human behavior
 - Difference: Freud = unconscious drives; Skinner = observable reinforcement