

GLOBAL  
EDITION



# Technical Communication Strategies for Today

SECOND EDITION

Richard Johnson-Sheehan



ALWAYS LEARNING

PEARSON

# Contents

## Preface 15

What's New in the Second Edition?	15
Guiding Themes	15
Computers as Thinking Tools	16
Genres as Pathways for Interpretation and Expression	16
Visual-Spatial Reading, Thinking, and Composing	16
The International, Cross-Cultural Workplace	17
The Activity of Technical Communication	17
Supplements to the Book	18
Acknowledgments	18

## Part 1: Elements of Technical Communication

### CHAPTER

# 1

## Communicating in the Technical Workplace 21

Developing a Workplace Writing Process	22
Genres and the Technical Writing Process	24
Stage 1: Planning and Researching	25
Stage 2: Organizing and Drafting	27
Stage 3: Improving the Style	29
Stage 4: Designing	29
Stage 5: Revising and Editing	29
What Is Technical Communication?	30
Technical Communication Is Interactive and Adaptable	31
Technical Communication Is Reader Centered	32
Technical Communication Relies on Teamwork	32
Technical Communication Is Visual	33
Technical Communication Has Ethical, Legal, and Political Dimensions	33
Technical Communication Is International and Cross-Cultural	35
How Important Is Technical Communication?	35
Chapter Review	36
Exercises and Projects	37

**Readers and Contexts of Use 39**

<b>Profiling Your Readers</b>	40
Identifying Your Readers	42
Profiling Your Readers' Needs, Values, and Attitudes	43
<b>Profiling Contexts of Use</b>	45
Identifying the Context of Use	46
<b>Using Profiles to Your Own Advantage</b>	46
<b>International and Cross-Cultural Communication</b>	52
Differences in Content	52
Differences in Organization	53
Differences in Style	54
Differences in Design	55
Listen and Learn: The Key to International and Cross-Cultural Communication	56
At Work: What Are Some Strategies for Communicating with People from Another Culture?	57
<b>Chapter Review</b>	58
<b>Exercises and Projects</b>	58
<b>Case Study: Installing a Medical Waste Incinerator</b>	60

**Working in Teams 64**

<b>The Stages of Teaming</b>	65
<b>Forming: Strategic Planning</b>	65
Step 1: Define the Project Mission and Objectives	66
Step 2: Identify Project Outcomes	67
Step 3: Define Team Member Responsibilities	67
Step 4: Create a Project Calendar	68
Step 5: Write Out a Work Plan	68
Step 6: Agree on How Conflicts Will Be Resolved	69
<b>Storming: Managing Conflict</b>	74
Running Effective Meetings	74
Mediating Conflicts	76
Firing a Team Member	78
<b>Norming: Determining Team Roles</b>	78
Revising Objectives and Outcomes	78
<b>Help: Virtual Teaming</b>	79
Identifying Team Roles	81
Using Groupware to Facilitate Work	82
<b>Performing: Improving Quality</b>	83

The Keys to Teaming	83
Chapter Review	85
Exercises and Projects	85
Case Study: Not a Sunny Day	87

CHAPTER

4

**Ethics in the Technical Workplace 88**

What Are Ethics?	89
Where Do Ethics Come From?	92
Personal Ethics	93
Social Ethics	93
Conservation Ethics	96
Resolving Ethical Dilemmas	97
<b>Help: Stopping Cyberbullying and Computer Harassment</b>	98
Confronting an Ethical Dilemma	100
Resolving an Ethical Dilemma	101
When You Disagree with the Company	102
Ethics in the Technical Workplace	105
Copyright Law	105
Trademarks	105
At Work: Why Should Technical Professionals Learn About Ethics?	106
Patents	106
Privacy	107
Information Sharing	107
Proprietary Information	107
Libel and Slander	108
Fraud	108
Chapter Review	108
Exercises and Projects	109
Case Study: This Company Is Bugging Me	110

**Part 2: Genres of Technical Communication**

CHAPTER

5

**Letters, Memos, and E-Mails 111**

Features of Letters, Memos, and E-Mails	112
Planning and Researching	118
Determining the Rhetorical Situation	118

<b>Organizing and Drafting</b>	<b>120</b>
Introduction with a Purpose and a Main Point	120
Body That Provides Need-to-Know Information	123
Conclusion That Restates the Main Point	124
<b>Types of Letters, Memos, and E-Mails</b>	<b>124</b>
Inquiries	125
Responses	125
Claims or Complaints	125
Adjustments	128
Refusals	128
<b>Using Style and Design</b>	<b>131</b>
Strategies for Developing an Appropriate Style	131
Designing and Formatting Letters, Envelopes, and Memos	134
<b>Using E-Mail Internationally</b>	<b>137</b>
<b>Microgenre: Texting at Work</b>	<b>140</b>
<b>Chapter Review</b>	<b>142</b>
<b>Exercises and Projects</b>	<b>142</b>
<b>Case Study: The Nastygram</b>	<b>146</b>

**CHAPTER 6 | Technical Descriptions and Specifications 148**

<b>Planning and Researching</b>	<b>149</b>
Planning	149
<b>Quick Start: Technical Descriptions and Specifications</b>	<b>150</b>
Researching	155
<b>Partitioning the Subject</b>	<b>155</b>
At Work: How Does Computer-Aided Drafting (CAD) Help Write Descriptions?	156
<b>Organizing and Drafting</b>	<b>160</b>
Specific and Precise Title	160
Introduction with an Overall Description	160
Description by Features, Functions, or Stages	161
Description by Senses, Similes, Analogies, and Metaphors	162
Conclusion	164
<b>Help: Using Digital Photography in Descriptions</b>	<b>164</b>
<b>Using Style and Design</b>	<b>166</b>
Plain, Simple Style	166
Page Layout That Fits	166
Graphics That Illustrate	166
<b>Microgenre: Technical Definitions</b>	<b>169</b>
<b>Chapter Review</b>	<b>173</b>

Exercises and Projects	173
Case Study: In the Vapor	177

CHAPTER

7

**Instructions and Documentation 179**

Planning and Researching	180
Quick Start: Instructions and Documentation	181
Planning	182
Researching	191
Planning for Cross-Cultural Readers and Contexts	192
Verbal Considerations	193
Design Considerations	193
Organizing and Drafting	194
Specific and Precise Title	194
Introduction	194
List of Parts, Tools, and Conditions Required	195
Sequentially Ordered Steps	196
Safety Information	202
Conclusion That Signals Completion of Task	205
Using Style and Design	205
<b>Help: On-Screen Documentation</b>	207
Plain Style with a Touch of Emotion	208
Functional, Attractive Page Layout	209
Graphics That Reinforce Written Text	210
User-Testing Your Documentation	212
Microgenre: Emergency Instructions	212
Chapter Review	214
Exercises and Projects	215
Case Study: The Flame	217

CHAPTER

8

**Proposals 218**

Planning and Researching	219
Planning	219
Quick Start: Proposals	220
Researching	225
Organizing and Drafting	226
Writing the Introduction	226
Describing the Current Situation	228
Describing the Project Plan	229
Describing Qualifications	236
Concluding with Costs and Benefits	236

Using Style and Design	239
A Balance of Plain and Persuasive Styles	239
An Attractive, Functional Design	242
Microgenre: The Elevator Pitch	244
Chapter Review	246
Exercises and Projects	247
Case Study: The Mole	257

CHAPTER **9** | **Activity Reports** 258

Types of Activity Reports	259
Progress Reports	259
Briefings and White Papers	259
Quick Start: Activity Reports	260
Incident Reports	262
Laboratory Reports	262
Planning and Researching	266
Analyzing the Rhetorical Situation	269
Organizing and Drafting	271
Writing the Introduction	271
Writing the Body	271
Writing the Conclusion	272
Using Style and Design	274
Using a Plain Style	274
Using Design and Graphics	274
Microgenre: The Status Report	275
Chapter Review	277
Exercises and Projects	277
Case Study: Bad Chemistry	279

CHAPTER **10** | **Analytical Reports** 280

Types of Analytical Reports	281
Quick Start: Analytical Report	282
Planning and Researching	283
Planning	283
Researching	288
Organizing and Drafting	293
Writing the Introduction	293
At Work: What Is the Most Efficient Way to Write a Report?	294
Describing Your Methodology	295
Summarizing the Results of the Study	295

Discussing Your Results	296
Stating Your Overall Conclusions and Recommendations	296
<b>Help: Using Google Drive to Collaborate with International Teams</b>	309
<b>Drafting Front Matter and Back Matter</b>	310
Developing Front Matter	310
Developing Back Matter	314
<b>Using Style and Design</b>	314
Using Plain Style in a Persuasive Way	314
A Straightforward Design	315
<b>Microgenre: The Poster Presentation</b>	319
<b>Chapter Review</b>	320
<b>Exercises and Projects</b>	321
<b>Case Study: The X-File</b>	323

CHAPTER

11

**Starting Your Career** 324

<b>Setting Goals, Making a Plan</b>	325
Setting Goals	325
Using a Variety of Job-Seeking Paths	325
<b>Quick Start: Career Materials</b>	326
<b>Preparing a Résumé</b>	330
Types of Résumés	330
Chronological Résumé	330
At Work: How Has the Internet Changed the Job Search Process?	336
Functional Résumé	339
Designing the Résumé	339
<b>Writing Effective Application Letters</b>	341
Content and Organization	341
<b>Help: Designing a Scannable/Searchable Résumé</b>	343
Style	345
Revising and Proofreading the Résumé and Letter	349
<b>Creating a Professional Portfolio</b>	349
Collecting Materials	350
Organizing Your Portfolio	351
Assembling the Portfolio in a Binder	351
Creating an Electronic Portfolio	352
<b>Interviewing Strategies</b>	353
Preparing for the Interview	353
At the Interview	354
Writing Thank You Letters and/or E-Mails	355



Microgenre: The Bio	357
Chapter Review	358
Exercises and Projects	359
Case Study: The Lie	361

## Part 3: Researching, Designing, Presenting

### CHAPTER 12

#### Researching and Research Methods 362

Beginning Your Research	364
Defining Your Research Subject	365
Narrowing Your Research Subject	366
Formulating a Research Question and Hypothesis	366
Developing a Research Methodology	367
Mapping Out a Methodology	367
Describing Your Methodology	367
Using and Revising Your Methodology	368
Triangulating Materials	369
Using Electronic Sources	370
Using Print Sources	371
Using Empirical Sources	373
Managing Information and Taking Notes	376
Managing Information	376
Careful Note Taking	376
Documenting Sources	380
Avoiding Plagiarism	382
Chapter Review	384
Exercises and Projects	384
Case Study: The Patchwriter	386

### CHAPTER 13

#### Designing Documents and Interfaces 387

Five Principles of Design	388
Design Principle 1: Balance	388
Weighting a Page or Screen	389
Using Grids to Balance a Page Layout	392

Design Principle 2: Alignment	396
Design Principle 3: Grouping	397
Using Headings	398
Using Borders and Rules	401
Design Principle 4: Consistency	402
Choosing Typefaces	402
Labeling Graphics	404
Creating Sequential and Nonsequential Lists	404
Inserting Headers and Footers	406
Design Principle 5: Contrast	406
Cross-Cultural Design	408
Chapter Review	410
Exercises and Projects	411
Case Study: Scorpions Invade	413

CHAPTER  
**14**

**Creating and Using Graphics 417**

Guidelines for Using Graphics	418
Guideline One: A Graphic Should Tell a Simple Story	419
Guideline Two: A Graphic Should Reinforce the Written Text, Not Replace It	420
Guideline Three: A Graphic Should Be Ethical	420
Guideline Four: A Graphic Should Be Labeled and Placed Properly	422
Displaying Data with Graphs, Tables, and Charts	423
Line Graphs	424
Bar Charts	425
Tables	426
Pie Charts	427
Flowcharts	429
Using Pictures and Drawings	430
Photographs	431
Inserting Photographs and Other Images	432
Illustrations	433
Using Cross-Cultural Symbols	434
Chapter Review	437
Exercises and Projects	437
Case Study: Looking Guilty	439

**Preparing and Giving Presentations 441**

<b>Planning and Researching Your Presentation</b>	<b>442</b>
Defining the Rhetorical Situation	444
Allotting Your Time	446
<b>Choosing the Right Presentation Technology</b>	<b>447</b>
<b>Organizing the Content of Your Presentation</b>	<b>450</b>
Building the Presentation	450
The Introduction: Tell Them What You're Going to Tell Them	451
<b>Help: Giving Presentations with your iPod, MP3, or Mobile Phone</b>	<b>454</b>
The Body: Tell Them	456
At Work: How Can I Overcome My Fear of Speaking in Public?	457
The Conclusion: Tell Them What You Told Them	459
Preparing to Answer Questions	461
<b>Choosing Your Presentation Style</b>	<b>462</b>
<b>Creating Visuals</b>	<b>464</b>
Designing Visual Aids	464
Using Graphics	466
Slides to Avoid	466
<b>Delivering the Presentation</b>	<b>467</b>
Body Language	467
Voice, Rhythm, and Tone	469
Using Your Notes	469
<b>Rehearsing</b>	<b>470</b>
Evaluating Your Performance	470
<b>Working Cross-Culturally with Translators</b>	<b>472</b>
<b>Chapter Review</b>	<b>476</b>
<b>Exercises and Projects</b>	<b>476</b>
<b>Case Study: The Coward</b>	<b>478</b>

**Appendix A: Grammar and Punctuation Guide 479**

<b>The Top Ten Grammar Mistakes</b>	<b>479</b>
Comma Splice	479
Run-On Sentence	480
Fragment	481
Dangling Modifier	481
Subject-Verb Disagreement	482
Pronoun-Antecedent Disagreement	483