FUNDAMENTALS OF AAC

A Case-Based Approach to Enhancing Communication

Second Edition

Nerissa Hall, PhD, CCC-SLP
Jenifer Juengling-Sudkamp, PhD, CCC-SLP
Michelle L. Gutmann, PhD, CCC-SLP
Ellen R. Cohn, PhD, CCC-SLP, ASHA Fellow

Plural Publishing Inc.

PLURAL PUBLISHING
INC.

9177 Aero Drive, Suite B
San Diego, CA 92123

e-mail: information@pluralpublishing.com
Web site: https://www.pluralpublishing.com

Typeset in 10.4/13 ITC Garamond Std by Achorn International
Printed in the United States of America by Hatteras

Library of Congress Cataloging-in-Publication Data

Names: Hall, Nerissa editor | Juengling-Sudkamp, Jenifer author |
Gutmann, Michelle L. author | Cohn, Ellen R. (Speech therapist) author
Title: Fundamentals of AAC : a case-based approach to enhancing communication /
[edited by] Nerissa Hall, PhD, CCC-SLP, Jenifer Juengling-Sudkamp, PhD, CCC-SLP,
Michelle L. Gutmann, PhD, CCC-SLP, Ellen R. Cohn, PhD, CCC-SLP, ASHA Fellow.
Description: Second edition. | San Diego, CA : Plural Publishing, Inc, [2027] |
Includes bibliographical references and index.
Identifiers: LCCN 2025019417 (print) | LCCN 2025019418 (ebook) | ISBN 9781635507737 paperback |
ISBN 1635507731 paperback | ISBN 9781635505009 ebook
Subjects: LCSH: People with disabilities—Means of communication | Speech therapy |
Needs assessment
Classification: LCC RC428.8 .F86 2027 (print) | LCC RC428.8 (ebook) |
DDC 616.85/506—dc23/eng/20250730
LC record available at https://lccn.loc.gov/2025019417
LC ebook record available at https://lccn.loc.gov/2025019418

CONTENTS

Preface *xxi*
Acknowledgments *xxiii*
About the Editors *xxv*
Contributors *xxix*
Reviewers *xxxv*

Section I. AAC System Fundamentals **1**

Chapter 1. A Co-Constructed Description of AAC **3**
Nerissa Hall, Hillary K. Jellison, Maria Burke, William Burke, Craig Burke, and Julia Serra
Introduction 3
Fundamentals 3
A Change in Focus 4
A Co-Constructed Understanding of AAC 5
In Conclusion 6
Case Study: WB 7
Clinical Profile and Communication Needs 7
The AAC System 8
Next Steps 9
References 10

Chapter 2. No-Tech AAC **13**
Amal M. Maghazil
Fundamentals 13
Unaided AAC 14
Aided AAC 16
In Conclusion 20
Case Study: PG 22
Clinical Profile and Communication Needs 22
Next Steps 24
References 25

Chapter 3. Mid- and High-Tech AAC **27**
Elena Fader Hurlburt
Fundamentals 27
Mid-Tech AAC 27
High-Tech AAC 30
Communicative Purpose 31
In Conclusion 33

Case Study: RA 33
Clinical Profile and Communication Needs 33
Next Steps 37
References 38

Chapter 4. Mobile AAC **41**
Oliver Wendt
Fundamentals 41
Introduction: What Are Mobile Technologies? 41
The Mobile Technology Revolution in AAC 41
Principles in Mobile Technology Application Design 43
Research Evidence and Funding Issues Related to Mobile Technology 44
Case Study: LM 45
Clinical Profile and Communication Needs 45
AAC Considerations 46
The AAC System or Service 47
Next Steps 49
References 50

Chapter 5. Physical Access Features of AAC **53**
Kathryn D'Agostino Russo
Fundamentals 53
What Is Alternate Access and Who Is It for? 53
Types of Alternate Access 53
Assessment for Alternate Access 59
Multimodal and Low-Tech Access for Communication 60
Considering Multiple Methods of Access 61
Access and Mobile Tablets 62
Learning Language and Access Skills 62
In Conclusion 63
Case Study: JB 63
Clinical Profile and Communication Needs 63
AAC Considerations 64
The AAC System or Service 66
Next Steps 66
References 67

Section II. AAC Language Fundamentals **69**

Chapter 6. Cultural and Linguistic Responsivity in AAC **71**
Gloria Soto and Marika King
Fundamentals 71
Consequences of Subtractive Bilingual Environments for AAC Users 72
Building Additive Bilingual Environments for AAC Users 72
Culturally and Linguistically Responsive Assessment 73
Culturally and Linguistically Responsive Intervention 75

Case Study: JR 77
Clinical Profile and Communication Needs 77
Next Steps 79
References 81

Chapter 7. Language and Vocabulary Features of AAC **83**
Brittney Cooper, MariaTeresa "Teri" H. Muñoz, and Gloria Soto
Fundamentals 83
General Considerations 83
Vocabulary Selection Frameworks 85
Types of Vocabulary 87
Vocabulary Selection Tools 90
In Conclusion 91
Case Study: AN 91
Clinical Profile and Communication Needs 91
Next Steps 95
References 96

Chapter 8. Literacy Instruction and Intervention for Complex Communicators Who Use AAC **99**
Amanda Soper
Fundamentals 99
Robust AAC: A Critical Accommodation for Literacy Intervention 100
Barriers to Literacy Instruction for Students with CCNs 102
Science of Reading 103
Literacy Intervention for Language Comprehension 103
Literacy Intervention for Word Recognition 105
Accommodations 106
In Conclusion 108
Case Study: VW 109
Clinical Profile and Communication Needs 109
Literacy Instruction Considerations 110
Next Steps 112
References 112

Section III. AAC Assessment, Intervention, and Implementation for Toddlers, Preschoolers, and School-Aged Individuals **115**

Chapter 9. Assessing Toddlers and Preschoolers **117**
Meher Banajee
Fundamentals 117
General Principles of Assessment of Toddlers and Preschoolers 117
Preparation for the Assessment 118
Assessment 118
Case Study: RC 123

Clinical Profile and Communication Needs 123
Rationale for Clinical Decision-Making 126
Next Steps 127
References 128

Chapter 10. Intervention and Implementation for Toddlers and Preschoolers Using AAC **129**
Barbara Weber
Fundamentals 129
Case Study: IB 131
Clinical Profile and Communication Needs 131
The AAC System 131
Rationale for Clinical Decision-Making 131
Next Steps 132
References 134

Chapter 11. Assessing School-Aged Individuals **135**
Sarah Gregory
Fundamentals 135
Case Study: RJ 141
Clinical Profile and Communication Needs 141
The AAC System or Service Considerations 142
AAC Considerations 142
Next Steps 144
References 145

Chapter 12. Intervention and Implementation for School-Aged Individuals Using AAC **147**
Amanda Soper
Fundamentals 147
Intervention Across the Five Domains of Language 148
Intervention Across AAC Competencies 149
Innovation/Modifications to Existing Language Therapy Tools 150
Descriptive Teaching Method 150
Support and Teaching Strategies 150
Case Study: JV 152
Clinical Profile and Communication Needs 152
Ongoing Assessment 153
Intervention Strategies and Implementation Supports 153
Next Steps 156
References 157

Chapter 13. Data Collection and Goal Writing in AAC **159**
Kate Grandbois and Amy Wonkka
Fundamentals 159
Goal Writing 160
Case Study: SB 165

Clinical Profile and Communication Needs 165
The Data Collection System 167
The Rationale for Clinical Decision-Making 167
Next Steps 167
References 168

Chapter 14. AAC for the Child in End-of-Life Care 169
Rachel Santiago
Fundamentals 169
The Care Team at End-of-Life 170
Communication Planning 170
Common Needs and Symptoms Children May Experience at End-of-Life 172
AAC Considerations at End-of-Life 173
In Conclusion 176
Case Study: GM 176
Clinical Profile and Communication Needs 176
AAC Considerations 177
Next Steps 178
References 178

Section IV. AAC Assessment, Intervention, and Implementation for Adults 181

Chapter 15. Services for Young Adults Using AAC Transitioning to Adulthood 183
Diane Nelson Bryen
Fundamentals 183
Prologue 183
New and Emerging Communication Technologies 183
AAC and the Importance of Transition 186
Case Study: CK 187
Clinical Profile and Communication Needs 187
AAC Considerations 190
Next Steps 192
References 193

Chapter 16. Assessing Adults 195
Jeffrey K. Riley, Lois Turner, and Stacey Harpell
Fundamentals 195
Communication Assessment and Action Plan 196
Final Report 202
Case Study: GB 202
Clinical Profile and Communication Needs 203
The Assessment 204
Next Steps 219
References 220

Chapter 17. Intervention and Implementation for Adults With Neurodegenerative Disorders Using AAC 221
Catherine Kanter, Emily Kornman, and Annette M. Stone
Fundamentals 221
Education and Counseling 221
Preservation 222
Augmentation 225
Adaptation 226
In Conclusion 226
Case Study: SH 230
Clinical Profile and Communication Needs 230
AAC System or Service Considerations 230
Next Steps 232
References 233

Chapter 18. AAC for the Individual in the Intensive Care Unit 235
Richard R. Hurtig and Tami Altschuler
Fundamentals 235
Introduction: Communication Risks and Barriers Including Health Disparities, Diversity and Inclusion 235
Special Considerations for the Intensive Care Unit 236
Patient Care Standards 237
Communication Partner Training and Interprofessional Practice 238
Life-Sustaining Decision-Making and End-of-Life Communication 240
Best Practices Models 241
In Conclusion 242
Case Study: EG 243
Clinical Profile and Communication Needs 243
AAC Considerations 243
Next Steps 245
References 246

Chapter 19. AAC for Adults in End-of-Life Care 249
Amanda Stead
Fundamentals 249
Communication Difficulties at End-of-Life 250
How AAC Can Support Communication, Socialization, and Decision-Making 250
Case Study: KM 252
Clinical Profile and Communication Needs 252
AAC Considerations 254
The AAC System or Service 255
Next Steps 255
References 256

Section V. AAC for Persons With Developmental Disabilities 259

Chapter 20. AAC for Persons With Developmental Disabilities 261
Jeeva John
The Fundamentals 261
Challenging Behaviors and the Role of Speech-Language Pathologists 262
AAC Evolves Across Their Life Span 263
Establish "Buy-in" and Prepare for the Communication Journey 264
Assessment and Tool Selection 264
Investigative Intervention 265
Designing a Meaningful Communication System 266
Consultation Services 267
Case Study: KC 267
Clinical Profile and Communication Needs 267
AAC Considerations 268
Next Steps 272
References 272

Chapter 21. AAC for Persons With Autism Spectrum Disorder 273
Tanushree Saxena-Chandhok, Deborah Xinyi Yong, and Sarah Miriam Yong Oi Tsun
Fundamentals 273
SETT Framework 273
Communicative Competence 274
AAC Intervention Strategies 274
The Role of the Caregiver in AAC Intervention 275
Case Study: EL 276
Clinical Profile and Communication Needs 276
AAC Considerations 278
Next Steps 279
References 281

Chapter 22. AAC for Persons With Cerebral Palsy 283
Katya Hill
Fundamentals 283
AAC Strategies and Technology 284
AAC Assessment 284
Intervention 287
Case Study: PL 288
Clinical Profile and Communication Needs 288
AAC System and Service Considerations 288
Next Steps 293
References 294

Chapter 23. AAC for Persons With Specific Sensory Impairments **297**
Lesley Quinn and Hillary K. Jellison
Fundamentals 297
Dual Sensory Impairment 299
Cortical Visual Impairment 299
AAC and Sensory Impairments 300
Case Study: HS 301
Clinical Profile and Communication Needs 301
AAC Considerations 303
Next Steps 307
References 307

Chapter 24. AAC for Individuals With Sensory Integration Challenges **311**
Sarah Gregory and Elisa Wern
Fundamentals 311
Competencies Versus Sensory Integration Areas 313
Considerations for the Trial Process 321
Instructional Strategies 321
Case Study: ES 322
Clinical Profile and Communication Needs 322
AAC Considerations 323
The AAC System or Service 323
Next Steps 324
References 325

Chapter 25. AAC for Persons With Complex Trauma **327**
Lesley Quinn
Fundamentals 327
Case Study: PW 329
Clinical Profile and Communication Needs 329
AAC Considerations 331
Next Steps 337
References 338

Section VI. AAC for Persons With Acquired Disabilities **341**

Chapter 26. AAC for Persons With Traumatic Brain Injury **343**
Lindsay R. James Riegler and Laura P. Klug
Fundamentals 343
Review of Cognitive-Communication Deficits in Traumatic Brain Injury 343
AAC Versus Assistive Technology Versus Information and Communication Technologies 344
Augmentative and Alternative Communication 345
Assistive Technology 346
Information and Communication Technologies 347
Special Considerations 348
Case Study: TH 348

Clinical Profile and Communication Needs 348
AAC Considerations 349
Next Steps 350
References 350

Chapter 27. AAC for Persons With Motor Speech Disorders 355
Mary Andrianopoulos
Fundamentals 355
Dysarthria 355
Case Study: RL 360
Clinical Profile and Communication Needs 360
AAC Considerations 362
Next Steps 363
References 364

Chapter 28. AAC for Persons With Amyotrophic Lateral Sclerosis 365
Telina Caudill
Fundamentals 365
Communication Symptoms 365
Dysarthria 366
Voice Disorder 366
Cognitive-Communication 366
Dysphagia 366
Communication Needs 366
Intervention Phases 367
Phase 1: Monitor, Prepare, and Support 368
Phase 2: Assess, Recommend, and Implement 369
Phase 3: Adapt and Accommodate 370
Case Study: RP 371
Clinical Profile and Communication Needs 371
AAC System or Service Considerations 372
The Rationale for Clinical Decision-Making 372
Next Steps 373
References 374

Chapter 29. AAC for Persons With Aphasia 377
Kimberly A. Eichhorn
Fundamentals 377
Case Study: WP 380
Clinical Profile and Communication Needs 380
AAC Considerations 382
Next Steps 383
References 384

Chapter 30. AAC for Persons With Dementia 387
Vanessa L. Burshnic-Neal
Fundamentals 387
Setting the Stage for AAC Use in Dementia 387

Strengths and Deficits in Dementia 387
Memory 387
Communication 388
Strengths and Deficits in Dementia: Clinical Implications 389
Guidelines for Developing AAC for People With Dementia 389
Examples of AAC for People With Dementia 390
Supported Preference Assessment 390
Memory Books 391
Orientation Aids 393
Reminder Cards 394
Activities of Daily Living Support 394
Supporting Care Partners 395
In Conclusion 396
Case Study: AM 397
Clinical Profile and Communication Needs 397
AAC Considerations 397
The Rationale for Clinical Decision-Making 398
Next Steps 399
References 401

Chapter 31. AAC for Persons Who Are Medically Complex 405
Abygail E. Marx and Sarah Marshall
Fundamentals 405
Introduction 405
Participation Framework 406
Case Study: LG 413
Clinical Profile and Communication Needs 413
AAC System or Service Considerations 413
Next Steps 415
References 416

Section VII. AAC Services for Stakeholders 417

Chapter 32. AAC Consultation 419
Erin S. Sheldon
Introduction 419
Terminology 419
The Fundamentals of AAC Consultation 419
Limits of the Traditional AAC Consultation Process 419
Collaborative Consultation 420
The Collaborative Consultation Process 421
Speech-Language Pathologists as Learners 422
Speech-Language Pathologists as Teachers 423
Developing Consensus on the Problem 424
Sharing Decision-Making 424
Building Capacity for AAC Implementation 426
Case Study: JE 427

Clinical Profile and Communication Needs 427
Next Steps 432
References 433

Chapter 33. Communication Partner Training for Families 435
Tabitha Jones-Wohleber
Fundamentals 435
Person-Centered Planning 435
Family-Centered Support 436
Family Characteristics 436
AAC in Everyday Life 437
Spiraling Learning Experiences for AAC Communication Partners: Four Key Elements 439
Case Study: PH 442
Clinical Profile and Communication Needs 442
AAC Service Considerations 442
Next Steps 443
References 444

Chapter 34. Communication Partner Training for Clinicians 445
Tabitha Jones-Wohleber
Fundamentals 445
Communication Partner Training 445
Responsive and Engaging Communication Partners 446
Supporting Adult Learners to Teach AAC 448
Models of Support 448
Designing Effective Learning Opportunities for Communication Partners 449
Barriers to AAC Implementation 449
Opportunity Barriers Include Attitude, Knowledge, Skill, Practice, and Policy Barriers 450
Case Study: JT 450
Clinical Profile and Communication Needs 450
AAC Considerations for Training 451
Next Steps 453
References 453

Chapter 35. Communication Partner Training for Staff 455
Jill E. Senner and Matthew R. Baud
Fundamentals 455
Case Study: BT 457
Clinical Profile and Communication Needs 457
AAC Considerations 457
Next Steps 459
References 460

Chapter 36. Tele-AAC 461
Michelle Boisvert
Fundamentals 461
Methods of Tele-AAC Service Delivery and Setup Considerations 462
Assessment, Intervention, and Consultation Services Delivered via Tele-AAC 466

Case Study: JS 469
Clinical Profile and Communication Needs 469
The AAC Service Considerations 470
Tele-AAC Setup for Optimal Visual Access 470
Next Steps 471
References 471

Section VIII. Perspectives of Stakeholders: A Collection of Essays 473

Essay 1. Ethical Considerations and AAC: A Framework for Ethical Communication and Practice 475
Paula Leslie
References 476

Essay 2. Ethical Considerations and AAC: A Framework for Neuro-Affirming Practice 477
Nerissa Hall and Ellen R. Cohn
Neuro-Affirming Practice 477
AAC Solutions for Neurodivergent Persons 478
In Conclusion 480
References 480

Essay 3. Ethical Considerations and AAC: A Consumer's Perspective 481
Chris Klein and Katya Hill

Essay 4. Ethical Considerations and AAC: A Parent's Perspective 483
Danielle A. Wagoner
Language 483
Include 483
Support 484
Team 484
Encourage 484
Normalize 485
Always L.I.S.T.E.N. 485
References 485

Essay 5. Ethical Considerations and AAC: Critical Health Situations, Informed Consent, and the Importance of Appropriate AAC 487
Paula Leslie
References 488

Essay 6. Cultural Considerations and AAC: Introduction to Models of Culture 491
Ellen R. Cohn and John W. Gareis
Edward T. Hall's Cultural Iceberg Model 491
Purnell's Model for Cultural Competence 492
Hofstede's Cultural Dimensions Model 492

Conclusion 493
References 493

Essay 7. Cultural Considerations and AAC: Introduction to African American Culture—Cultural Values and Communicating Respect **495**
Paula K. Davis
References 496

Essay 8. Cultural Considerations and AAC: Introduction to Hispanic Culture—Cultural Values and Communicating Respect **497**
Glen M. Tellis
Cultural Values and Communicating Respect 497
Respect for Authority 497
Cultural Values and Other Aspects 498
References 498

Essay 9. Cultural Considerations and AAC: LGBTQIA+ Affirmative Practice: Empowering Our Queer Clients and Families **501**
Gazit Chaya Nkosi
Vocabulary and Definitions 503
References 505

Essay 10. Cultural Considerations and AAC: Culture and Social and Economic Determinants of Health and the Use of AAC **507**
Ellen R. Cohn and Mario C. Browne
What Are Social Determinants of Health? 507
Scenario 1: A Family Suffering From Societal and Economic Stressors 508
Scenario 2: A Family With Superior Resources 508
Digital Resources and Social Determinants of Health 508
References 509

Essay 11. Cultural Considerations and AAC: Self-Evaluation of Cultural Competence **511**
Dorian Lee-Wilkerson and Shelly Chabon
References 512

Essay 12. Cultural Considerations and AAC: Religious Considerations **513**
John W. Gareis
Diet 513
Prescription Medication 514
Medical Procedures 514
Conclusion 514
References 515

Essay 13. Cultural Considerations and AAC: Essential Faith-Based Vocabulary for Protestant Christian Users of AAC **517**
John W. Gareis

Essay 14. Cultural Considerations and AAC: Essential Vocabulary for Jewish Users of AAC **519**
Karen J. Golding-Kushner
Guidance on Use of This Vocabulary 520
Reference 520

Essay 15. Cultural Considerations and AAC: Essential Vocabulary for Muslim Users of AAC **521**
Amal M. Maghazil
Guidance on Use of This Vocabulary 521
References 522

Essay 16. Cultural Considerations and AAC: Avoiding "Cheugy" Vocabulary Selection **523**
Ellen R. Cohn
Generational Labels 523
ASHA Practitioner Age Demographics 523
Implications for Vocabulary Selection for AAC Systems 524
References 524

Essay 17. Clinical Considerations and AAC: Building My AAC Village **525**
Tannalynn Neufeld

Essay 18. Clinical Considerations and AAC: The Other A for "Augmentative" **527**
Rebecca M. Lavelle

Essay 19. Clinical Considerations and AAC: AAC, Language, and Literacy—It's About Connection **529**
Lesley Quinn
Reference 531

Essay 20. Clinical Considerations and AAC: Visual Supports and AAC **533**
Amy Wonkka and Kate Grandbois

Essay 21. Clinical Considerations and AAC: AAC Report Writing a nd Leveraging Automation as a Tool for Clinicians **535**
Michelle Boisvert and Nerissa Hall
Introduction 535
The Complexity of AAC Evaluations 535
Data Interpretation and Report Writing 536
Automation Is the Tool for AAC Report Writing 537
In Conclusion 537

Essay 22. Clinical Considerations and AAC: Ethical Vendor Relationships **539**
Katya Hill
References 541

Essay 23. Clinical Considerations and AAC: Building the Evidence Base for Evidence-Based Practice **543**
Tim DeLuca
Introduction 543
Building the Evidence Base 543
Implementation Science 544
Research-Practice Partnerships 544
Diffusion and Dissemination 545
Diffusion and Dissemination in Research 545
Diffusion and Dissemination in Clinical Practice 545
Conclusion 546
References 546
Implementation Science Resources 547

Essay 24. Clinical Considerations and AAC: The Future of AAC **549**
Mai Ling Chan
References 551

PREFACE

As an authorship team, we feel the ultimate goal of supporting communication and advancing language is core to augmentative and alternative communication (AAC). However, this goal can only be realized if AAC is designed and implemented in such a way that addresses the needs of individual learners as they interact within their communication partners and communities.

While there are strong foundational concepts that underlie the field at large, the practice of AAC (the way in which we assess, intervene, and implement it) has to be co-constructed between individuals (as members of a community or multiple communities), their communication partner(s), and the professional(s) with whom they work.

There is no single, one-size-fits-all way to "do" AAC. Instead, each assessment, treatment, and/or implementation plan is unique to the individual and arises from their cognitive-linguistic profile, physical abilities, sense of self, their psychosocial makeup, their family, and their community.

The field of AAC has grown and evolved tremendously over the years. Its application has become more widespread, and the AAC technology has advanced. The AAC tools are always changing, but the task of supporting an individual's ability to communicate fully and independently in a manner that is meaningful to them remains constant, irrespective of who they are and how they are supported. Each AAC system represents a product wherein language, vocabulary, and access features are shaped by the individual's unique abilities and challenges as well as by their various community affiliations.

This text is written for preprofessional and professional clinicians interested in learning how to support individuals with complex communication needs (CCN) requiring and benefiting from AAC in a range of clinical settings. Each chapter is structured such that fundamental concepts and principles are presented first and is then followed by a relevant case study that presents the concepts and principles "in action" so that the reader is guided through the use of clinical decision-making in AAC. Every case study is designed to underscore the cultural, linguistic, and social variability inherent to the fields of AAC and communication sciences and how each individual influences the manifestation of the AAC system, treatment, and implementation plans.

The text is divided into eight sections, organizing the content to support both understanding and teaching:

Section I. AAC System Fundamentals

Section II. AAC Language Fundamentals

Section III. AAC Assessment, Intervention, and Implementation for Toddlers, Preschoolers, and School-Aged Individuals

Section IV. AAC Assessment, Intervention, and Implementation for Adults

Section V. AAC for Persons With Developmental Disabilities

Section VI. AAC for Persons With Acquired Disabilities

Section VII. AAC Services for Stakeholders

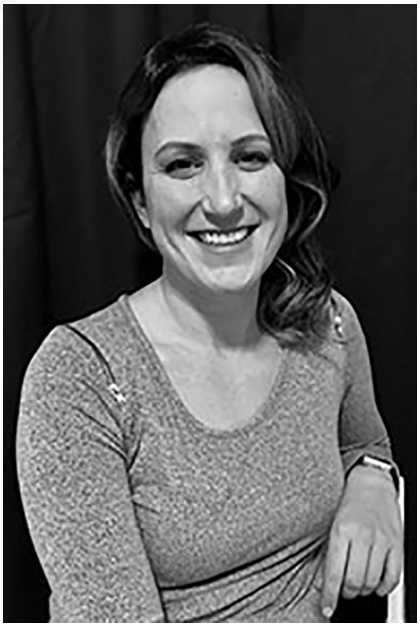
Section VIII. Perspectives of Stakeholders: A Collection of Essays

A full suite of digital ancillary materials is available on the PluralPlus companion website to enrich teaching and learning from the textbook. The resources for instructors include an Instructor's

Manual, PowerPoint slides, test bank, image bank, a workbook with activities and exercises, instructional resources for the case studies, and links to related resources. Students can access videos, a selection of helpful color photos, and additional links to related resources.

We invite you to explore the content herein and hope you will find it informative, thought provoking, and enjoyable to read. Further, we hope you find that the multinational and multicultural perspectives contained in chapters and essays broaden your interpretative lens and enhance your clinical practice. Most of all, we hope this text inspires you to engage more with people who use AAC; they inspire us, and it is our privilege to learn from one another as we aim for even higher service provision.

ABOUT THE EDITORS



Nerissa Hall, PhD, CCC-SLP

Dr. Nerissa Hall is co-founder of Commūnicāre, LLC and codirector of the Speech, Language, and Literacy Center at Tate Behavioral, Inc. Her work concentrates on augmentative and alternative communication, assistive technology, and tele-AAC, and she works primarily with school-aged individuals, providing specialized, evidence-based intervention, assessment, and consultation services. Dr. Hall received her masters and doctorate degrees from the University of Massachusetts-Amherst, focusing on AAC skill advancement and implementation as well as tele-AAC. She has presented nationally regarding these and other related topics. Dr. Hall has served as a LEND Fellow and as adjunct faculty at Elms College, Cambridge College, and the University of Massachusetts-Amherst. She is part of the team that edited *Tele-AAC: Augmentative and Alternative Communication Through Telepractice* and is passionate about advancing the fields of AAC and AT to ensure meaningful outcomes for individuals using AAC and AT and the teams that support them.

Jenifer Juengling-Sudkamp, PhD, CCC-SLP

Dr. Jenifer Juengling-Sudkamp is a speech-language pathologist who provides augmentative and alternative communication consultations, assessments, and interventions across multiple medical settings to adults with complex communication needs that are often a result of acquired neurodegenerative disorders and/or traumatic brain injury. She has a passion to improve people's access to AAC consultative, evaluation, and/or interventions and joined a team of talented editors and authors to contribute to the resourceful clinical book, *Tele-AAC: Augmentative and Alternative Communication Through Telepractice*. Dr. Juengling-Sudkamp is a clinical instructor in the Department of Orthopaedics at Tulane University School of Medicine, where she teaches combined undergraduate and graduate courses in applied neuroscience that are specific to the clinical management of athletes with sport-related brain injuries. She also served as the program manager and a consultant for the Sport Concussion Clinic, the NFL Players Association's Trust Brain and Body, and the Milestone Wellness Assessment programs at Tulane University. She has coauthored publications and copresented nationally and internationally on topics including AAC, tele-AAC, and the management of cognitive-communication deficit and dysphagia among adolescents and adults with acquired neurological disorders.

Michelle L. Gutmann, PhD, CCC-SLP

Dr. Michelle L. Gutmann is a clinical professor at Purdue University Department of Speech, Language, and Hearing Sciences, where she teaches a variety of graduate courses including AAC, counseling in communication disorders, and motor speech disorders. After completing her doctoral studies and prior to coming to Purdue, she served as a clinical assistant professor and the speech-language pathologist for the ALS Clinic at Vanderbilt University Medical Center. Prior to returning to doctoral studies, she worked clinically for approximately a decade with both children and adults who needed AAC. She is part of the team that edited *Tele-AAC: Augmentative and Alternative Communication Through Telepractice* and is passionate about working with adults with acquired and/or neurodegenerative communication disorders who need AAC. Dr. Gutmann has served as the professional development manager for ASHA's SIG 12 (AAC) since 2017. She is also active in both research and clinical endeavors related to the application and implementation of AAC for adults with acquired neurological disorders. Her interests include telepractice, interprofessional education, clinical education in speech-language pathology, implementation science, and health literacy. She has published and presented nationally and internationally.

Ellen R. Cohn, PhD, CCC-SLP, F-ASHA

Dr. Ellen R. Cohn is an adjunct faculty member in the Department of Communication and Rhetoric in the Dietrich School of Arts and Sciences and the College of General Studies at the University of Pittsburgh and is an adjunct professor at the University of Maryland Global Campus, where she teaches distance education health communication and a variety of other applied communication courses. She has held secondary appointments in Pitt's School of Dental Medicine and in the Clinical and Translational Science Institute and as a Faculty Fellow, University Honors College, and an affiliated faculty member of Pitt's University Center for International Studies. Dr. Cohn has coauthored books on the topics of videofluoroscopy/cleft palate; communication as culture; diversity across the curriculum in higher education; telerehabilitation; a casebook in communication science and disorders; tele-AAC; and two programs at the University of Pittsburgh's School of Law: Certificate Program in Disability Law, and the first MSL with a concentration in disability law. Dr. Cohn is a past investigator for the U.S. Department of Education National Institute on Disability and Rehabilitation Research, Rehabilitation Engineering Research Center on Telerehabilitation. She served as professor in the Department of Communication Science and Disorders School of Health and Rehabilitation Sciences, University of Pittsburgh, associate dean for Instructional Development (2007–2015), assistant dean for Instructional Development (2002–2007), and director of Instructional Development (1999–2002), School of Health and Rehabilitation Sciences, University of Pittsburgh. Dr. Cohn was designated a Diversity Champion, American Speech-Language-Hearing Association (2009), and was a Provost's Office, Diversity Seminar Fellow (2005). Her interests span the areas of telerehabilitation/telehealth/telemedicine; interprofessional education; cleft palate, dentofacial, and craniofacial disorders; clinical training in speech-language pathology; and health-care communication. She is the founding editor (2008–present) of the *International Journal of Telerehabilitation* (a PubMed indexed

electronic journal). In 2013, Dr. Cohn was named a fellow of the American Speech-Language-Hearing Association. In 2006 she received the honors of the Southwestern Pennsylvania Speech-Language and Hearing Association. In 2020, she and coauthor Dr. Jana Cason received the American Speech-Language-Hearing Association's Editor's Award for Ethical Considerations for Client-Centered Telepractice, Perspectives of the Special Interest Groups.

CONTRIBUTORS

Tami Altschuler, MA, CCC-SLP
Speech-Language Pathologist
Clinical Specialist in Patient-Provider Communication
Rusk Rehabilitation
NYU Langone Medical Center
New York, New York
Chapter 18

Mary Andrianopoulos, PhD, CCC-SLP
Associate Professor
Department of Communication Disorders
University of Massachusetts
Amherst, Massachusetts
Chapter 27

Meher Banajee, PhD, CCC-SLP
Associate Professor and Program Director
Speech-Language Pathology
School of Allied Health Professions
Louisiana State University Health Sciences Center
New Orleans, Louisiana
Chapter 9

Matthew R. Baud, CCC-SLP/L
Assistive Technology Coordinator
Niles Township District for Special Education
Morton Grove, Illinois
Chapter 35

Michelle Boisvert, PhD, CCC-SLP
Speech-Language Pathologist
WorldTide, Inc.
Williamsburg, Massachusetts
Chapter 36, Essay 21

Mario C. Browne, MPH, CDP
Director
Office of Health Sciences Diversity, Equity, and Inclusion
Interim Associate Dean for Equity, Engagement, and Justice
School of Pharmacy
University of Pittsburgh
Pittsburgh, Pennsylvania
Essay 10

Diane Nelson Bryen, PhD
Professor Emerita
Temple University
Philadelphia, Pennsylvania
Chapter 15

Craig Burke
Chapter 1

Maria Burke
Chapter 1

William Burke
Chapter 1

Vanessa L. Burshnic-Neal, PhD, CCC-SLP
Advanced Fellow in Geriatrics
Geriatric Research, Education, and Clinical Center
Durham VA Medical Center
Durham, North Carolina
Chapter 30

Telina Caudill, MS, CCC-SLP, ATP
Speech Pathologist
James A Haley VA Hospital
Tampa, Florida
Chapter 28

Shelly Chabon, PhD, CCC-SLP, F-ASHA
Past President, ASHA 2012
Vice Provost for Academic Personnel and Dean Interdisciplinary General Education
Portland State University
Portland, Oregon
Essay 11

Mai Ling Chan, MS, CCC-SLP
Director, Growth and Achievement
Cognixion
Exceptional Leader Podcast Host
Lead Author and Publisher
Becoming an Exceptional Leader Book Series
Phoenix, Arizona
Essay 24

Brittney Cooper, MS, CCC-SLP
Joint Special Education Program
San Francisco State University
University of California, Berkeley
Chapter 7

Paula K. Davis, MA, CDE
Associate Vice Chancellor for Health Sciences Diversity, Equity, and Inclusion
University of Pittsburgh
Pittsburgh, Pennsylvania
Essay 7

Tim DeLuca, PhD, CCC-SLP
Assistant Professor
Department of Speech, Language, and Hearing Sciences
University of Massachusetts-Amherst
Amherst, Massachusetts
Essay 23

Kimberly A. Eichhorn, MS, CCC-SLP, BC-ANCDS, ATP
Program Supervisor, Speech Pathology Department
VA Pittsburgh Healthcare System
Pittsburgh, Pennsylvania
Chapter 29

Elena Fader Hurlburt, MA, CCC-SLP
Director of Assistive Technology Services
New England Assistive Technology, an Oak Hill Center
Hartford, Connecticut
Chapter 3

John W. Gareis, MDiv, PhD
Senior Lecturer (Retired)
Department of Rhetoric and Communication
University of Pittsburgh
Pittsburgh, Pennsylvania
Essays 6, 12, and 13

Karen J. Golding-Kushner, PhD, CCC-SLP, F-ASHA
The Golding-Kushner Speech Center and Golding-Kushner Consulting, LLC
Consultant
The Virtual Center for VCFS and Other Craniofacial Disorders
East Brunswick, New Jersey
Essay 14

Kate Grandbois, MS, CCC-SLP, BCBA, LABA
Owner and Managing Director
Grandbois Therapy and Consulting, LLC
Cofounder, Cohost, and Writer
SLPNerdcast
Concord, Massachusetts
Chapter 13; Essay 20

Sarah Gregory, MS, CCC-SLP
Speech-Language Pathologist and Assistive Technology Consultant
Ithaca City School District
Ithaca, New York
Chapters 11 and 24

Stacey Harpell, BS, MS, CCC-SLP, RSLP
Client Services Manager
CAYA
Vancouver, BC, Canada
Chapter 16

Katya Hill, PhD, CCC-SLP
Associate Professor
AAC-BCI Innovation Laboratory—iLab
Department of Communication Science and Disorders
University of Pittsburgh
Pittsburgh, Pennsylvania
Chapter 22; Essays 3 and 22

Richard R. Hurtig, PhD, F-ASHA
Professor Emeritus
Department of Communication Sciences & Disorders
The University of Iowa

Iowa City, Iowa
Chapter 18

Hillary K. Jellison, MS, CCC-SLP, ATP
Founding Partner
Commūnicāre, LLC
Southwick, Massachusetts
Chapters 1 and 23

Jeeva John, MS, CCC-SLP
Speech-Language Pathologist
Oakland Unified School District
Oakland, California
Chapter 20

Tabitha Jones-Wohleber, MS, CCC-SLP
Communication AACtualized, LLC
AT Team Member
Frederick County Public Schools
Shepherdstown, West Virginia
Chapters 33 and 34

Catherine Kanter, MS, CCC-SLP
Clinical Speech-Language Pathologist
Augmentative and Alternative Communication (AAC) Programs
Waisman Center UCEDD
University of Wisconsin–Madison
Madison, Wisconsin
Chapter 17

Marika King, PhD, CCC-SLP
Assistant Professor
Department of Communicative Disorders and Deaf Education
Utah State University
Logan, Utah
Chapter 6

Chris Klein, MDiv
AAC United, Halakah
Freelance Speaker, Teacher, and Writer
Holland, Michigan
Essay 3

Laura P. Klug, MA, CCC-SLP, CBIS
TBI/Polytrauma Program Manager
Cincinnati VA Medical Center
Cincinnati, Ohio
Chapter 26

Emily Kornman, MCD, CCC-SLP
Clinical Speech-Language Pathologist
The Gleason Foundation
New Orleans, Louisiana
Chapter 17

Rebecca M. Lavelle, MA, CCC-SLP
Speech-Language Pathologist
South Hadley, Massachusetts
Essay 18

Dorian Lee-Wilkerson, PhD, F-ASHA
Associate Professor and Department Chair
Department of Communicative Sciences and Disorders
Hampton University
Hampton, Virginia
Essay 11

Paula Leslie, PhD, MA Bioethics, FRCSLT, CCC-SLP
Consultant Scholar
Preston, United Kingdom
Essays 1 and 5

Amal M. Maghazil, MS, CCC-SLP
Head, Speech & Language Unit
Communication & Swallowing Disorders Department
King Fahad Medical City
Riyadh, Saudi Arabia
Chapter 2; Essay 15

Sarah Marshall, MA, CCC-SLP
Clinical Speech-Language Pathologist
Communication Aids and Systems Clinic (CASC) | Neuromotor Development Clinic
Waisman Center Clinics UCEDD
University of Wisconsin–Madison
Madison, Wisconsin
Chapter 31

Abygail E. Marx, MS, CCC-SLP
Clinical Speech-Language Pathologist

Augmentative and Alternative Communication (AAC) Programs
Waisman Center Clinics UCEDD
University of Wisconsin–Madison
Madison, Wisconsin
Chapter 31

MariaTeresa "Teri" H. Muñoz, SLPD, CCC-SLP
Clinical Assistant Professor
Department of Communication Sciences and Disorders
Florida International University
President/Founding Board Member
St. Therese's Roses of Hope, Pediatric Center, Inc.
Miami, Florida
Chapter 7

Tannalynn Neufeld, MS, CCC-SLP
Assistant Teaching Professor
Department of Communication Sciences and Disorders
University of Washington
Founder and Director
AACcessible Foundation
Seattle, Washington
Essay 17

Gazit Chaya Nkosi, MA, CCC-SLP
Speech-Language Pathologist
Amherst, Massachusetts
Essay 9

Lesley Quinn, MS, CCC-SLP
Language, Literacy, and AAC Specialist
Commūnicāre, LLC
Southwick, Massachusetts
Chapters 23 and 25; Essay 19

Lindsay R. James Riegler, PhD, CCC-SLP, CBIS
Innovation Specialist/Research Speech-Language Pathologist
Cincinnati VA Medical Center
Cincinnati, Ohio
Chapter 26

Jeffrey K. Riley, MSc, RSLP
Program Manager–Retired and Cofounder
CAYA—Communication Assistance for Youth and Adults
Vancouver, BC, Canada
Chapter 16

Kathryn D'Agostino Russo, MS, TSSLD, CCC-SLP
Speech-Language Pathologist
New York City Department of Education District 75
New York, New York
Chapter 5

Rachel Santiago, MS, CCC-SLP
Clinical Coordinator; Speech-Language Pathologist
Inpatient Augmentative Communication Program
Department of Otolaryngology and Communication Enhancement
Boston Children's Hospital
Boston, Massachusetts
Chapter 14

Tanushree Saxena-Chandhok, MSc (SLP)
Speech-Language Therapist
Specialised Assistive Technology Centre (SATC), SPD
Singapore
Chapter 21

Jill E. Senner, PhD, CCC-SLP
Owner and Director
Technology and Language Center, Inc.
Evanston, Illinois
Chapter 35

Julia Serra, SLP-A
Clinical Team Member
Commūnicāre, LLC
Southwick, Massachusetts
Chapter 1

Erin S. Sheldon, Med
Special Education Lead
AssistiveWare
Kingston, ON, Canada
Chapter

Amanda Soper, MS, CCC-SLP
Owner
AACreAtively Communicating, LLC
Assistive Technology Specialist
St. Coletta of Greater Washington
Adjunct Professor
Gallaudet University
Washington, DC
Chapters 8 and 12

Gloria Soto, PhD
Professor
Department of Speech, Language and Hearing Sciences
Department of Special Education
San Francisco State University
San Francisco, California
Chapters 6 and 7

Amanda Stead, PhD, CCC-SLP
Associate Professor
Pacific University
Forest Grove, Oregon
Chapter 19

Annette M. Stone, MA, CCC-SLP
Senior Clinical Speech Pathologist and Director of CASC
Waisman Center
University of Wisconsin–Madison
Madison, Wisconsin
Chapter 17

Glen M. Tellis, PhD, CCC-SLP, F-ASHA
Professor and Chair
Department of Speech-Language Pathology
Misericordia University
Dallas, Pennsylvania
Essay 8

Sarah Miriam Yong Oi Tsun, MA, SLP, ATP
Clinical Manager–Specialised Assistive Technology Centre (SATC), SPD
Singapore
Chapter 21

Lois Turner, MS, RSLP, CCC-SLP, ATP
Program Manager and Co-Founder
CAYA–Communication Assistance for Youth and Adults
Vancouver, BC, Canada
Chapter 16

Danielle A. Wagoner
Agawam, Massachusetts
Essay 4

Barbara Weber, MS, CCC-SLP, BCBA
Private Practice
Hershey, Pennsylvania
Chapter 10

Oliver Wendt, PhD
Director of the Research Lab on AAC in Autism and Developmental Disorders
School of Communication Sciences and Disorders
University of Central Florida
Orlando, Florida
Chapter 4

Elisa Wern, Med, OTR/L, ATP
Lead Occupational Therapist and Local Assistive Technology Specialist (LATS)
Alachua County Public Schools
Owner
AT and OT Consulting and Coaching
Gainesville, Florida
Chapter 24

Amy Wonkka, MA, CCC-SLP
Speech-Language Pathologist
Public School AAC Specialist—Massachusetts
Cofounder, Writer, Cohost
SLPNerdcast
Shirley, Massachusetts
Chapter 13; Essay 20

Deborah Xinyi Yong, BHSc (Hons) Speech Pathology, ATP
Speech-Language Therapist
AAC Specialist
Your Communication Matters Speech and Language Therapy
Kuala Lumpur, Malaysia
Chapter 21

CHAPTER 1

A Co-Constructed Description of AAC

Nerissa Hall, Hillary K. Jellison, Maria Burke, William Burke, Craig Burke, and Julia Serra

Introduction

William Burke is 17 years old. He has used augmentative and alternative communication (AAC) in various ways since he was 5 years old. His parents, Maria and Craig Burke (as pictured alongside Will in Figure 1–1), along with speech pathologists/AAC consultants, Hillary Jellison and Nerissa Hall, and speech-language pathology assistant/graduate student, Julia Serra, authored this chapter collaboratively. AAC ensures that an individual has a voice and can be understood. It also serves to connect people with one another and within their communities. Through synthesis of the perspectives of various stakeholders, one can better understand the power of AAC.

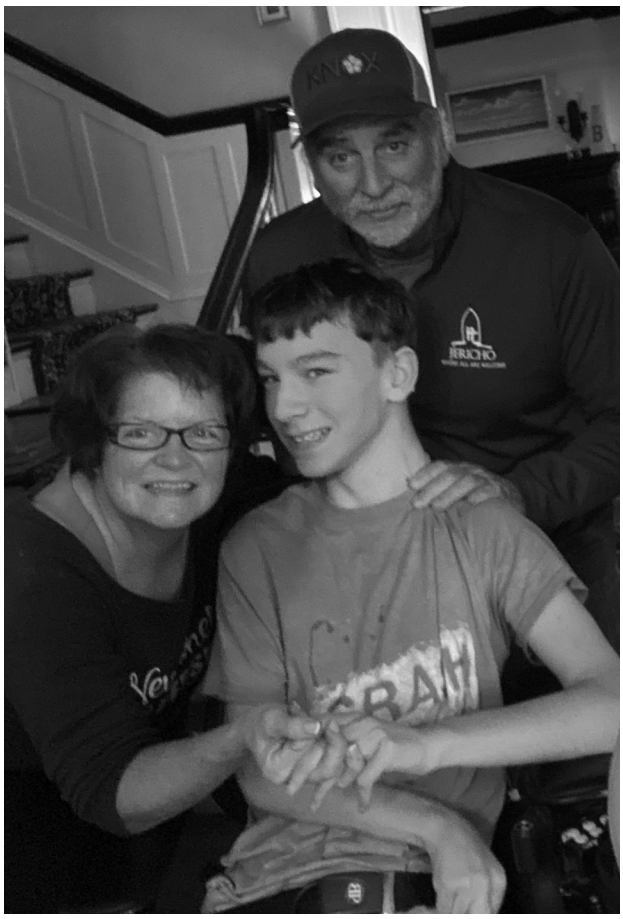


Figure 1–1. Will and his family at the time of authoring this chapter.

Fundamentals

AAC refers to ways of supporting existing speech and communicating using means other than verbal speech. AAC includes intrinsic, unaided forms of communication (such as facial expressions, gestures, body posturing, and sign language) as well as extrinsic, aided methods (like use of objects, pictures, writing, and typing). AAC is symbolic in that the form or method of AAC represents a letter,

word, phrase, or sentence that could otherwise be verbalized.

While AAC is often considered a system involving a carefully organized set of words, icons, letters, and/or phrases, it is important to note that AAC is far more than just a system. AAC establishes a way to communicate and share information between two or more individuals. AAC serves to make meaning. It serves to supplement and augment an individual's existing speech or as an alternative for someone who is nonverbal, aphonic, or hard to understand. AAC creates a connection and allows for meaningful engagement and participation.

For AAC to be efficient, it needs to be relevant and accessible to the individual, with the ability to change and evolve over time, as does the person who uses AAC (PWUAAC). Adjustable features mean that practitioners and consumers can customize the vocabulary, language, and visual and auditory presentation of the systems (as detailed in the chapters of the first section of this text) to accommodate an individual and personalize the tool that represents their voice. Technological advancements mean that most anyone can use AAC tools through access to manipulative objects or icons, capacitive screens that are responsive to the electrical properties of human touch, the extensive array of switches to account for limited movement, eye-gaze access options, brain-computer interfaces that detect neural signals (Brumberg et al., 2018), or artificial intelligence (Cognixion, 2021), for example. These programming and technological features help ensure the efficiency of the AAC system.

For AAC to be effective, it needs to empower an individual to express themself in an authentic way that is understood and serves to connect them with their communication partner(s). Both the partner and the community need to be taken into consideration for this connection to be genuine. AAC represents an intersection between an individual with complex communication needs (CCNs), the people with whom the individual communicates, and their environment(s). The AAC system arises from the interplay between these elements, evolving as these elements change over an individual's life span.

While there are strong foundational concepts that guide the field, the practice of AAC (the way in which we assess, intervene, and implement it) has to be co-constructed between individuals, their communication partner(s), and their respective communities. The professional(s) with whom they work add to and facilitate this co-constructed communication, rather than dictate it. The role of the speech-language pathologist (SLP) is to establish a foundation for collaborative and transdisciplinary work where the individual and their communication partners are involved in truly meaningful ways. There is no single, one-size-fits-all way to "do" AAC. Instead, each assessment, treatment, and implementation plan must be unique to the individual and arises from their cognitive-linguistic profile, physical abilities, sense of self, their psychosocial makeup, their family, and their community.

A Change in Focus

"Doing" AAC work means embracing a mindset of discovery, where one is open to and seeking to understand what is important to the individual far beyond the confines of the clinical environment. This involves careful integration of what one knows about the field of AAC with the unique information presented by the individual themself. It means to establish a space and time for genuine involvement of the individual and their family members, caregivers, and important communication partners. For SLPs, this means orchestrating the involvement of various stakeholders and empowering the influence of their input in the ways in which an AAC system is established and subsequently implemented. This is meaningful work that changes lives.

Authentic, family-centered work, by its very nature, ensures generalization into an individual's everyday life and is therefore effective and "supportive of change" (Luterman, 2021). This clinical direction is particularly important when considering AAC, as the burden of responsibility most often falls on familiar communication partners to make sure an individual can communicate effectively and have their needs met, especially in the absence of AAC. Additionally, AAC has the potential to enhance the connection between an individual and their most important partners through shared

understanding and meaning. Luterman (2021) suggests that by involving the parent or family member, we, in turn, improve the outcomes for the individual; intervening at the level of the caregiver can help to reduce caregiver distress (Maresca et al., 2019; Ncube et al., 2018), which can also lead to improved outcomes and quality of life (QoL). Our pull-out, outpatient, and school-based models of care do not necessarily make space for authentic intervention that emphasizes the family and communication partners (but they can!).

Further highlighting the connection between the individual and their most important communication partners within various environments is the development of friendships. AAC can positively impact QoL by supporting an individual's ability to participate more independently in social exchanges and activities. This also serves as a connection to one's community and "circles" of family, friends, colleagues, professionals, and even unfamiliar partners (Blackstone, 1999). One's community influences our way of thinking; is closely tied to an individual's identity; and is interwoven with the words used and the ways in which people engage, interact, and communicate. To know about one's community means to better understand what is consequential and pertinent for the individual and their social position. This informs the vocabulary and language adjustments necessary to make the AAC system meaningful.

AAC offers access to language, which is an "instrument of communication . . . [and constitutes] a means of asserting one's identity or one's distinctiveness from others" (Jaspal, 2009, p. 17), and is more than words programmed to support participation and overcome barriers. To afford this, AAC must be designed and individually tailored to meet and exceed the needs of the individual and to try to best reflect their uniqueness while creating space for novelty and spontaneity as well as syntactic, semantic, and pragmatic advancement, self-expression, and the development of their character. Digitized (voice-recorded) and synthesized (computer-generated) voices need to match the individual as best possible, and the individual should be involved in making this selection. Collectively, these factors allow AAC to serve as an individual's voice.

A Co-Constructed Understanding of AAC

AAC can be and can mean something different to different stakeholders. By listening to the stakeholders and letting their input carry weight and meaning, the SLP facilitates this process of collaboration and codevelopment of meaningful AAC.

For the individual with CCNs, AAC means having a voice, being heard, and being understood. However, it also means hard work, where the purpose and reward of the effort may not be easily discernible. While regular practice using a specific set of target vocabulary or word combinations in a prescribed context will help build on a skill, for an individual this might need to be balanced with AAC "downtime" where using the prescribed system is not always expected. With the ultimate goal being to engage in a manner that is understood, it is important to "hear" from the individual how this can be done most effectively. With the mindset of discovery and through the use of active listening strategies, AAC practitioners can adjust the AAC system and clinical approach to ensure meaningful connection and authentic representation of the individual.

For parents and caregivers, AAC can mean less guessing and less frustration. It can provide a shared medium for problem-solving and can foster a trusting relationship based on the premise that "we will figure this out." When well-designed and available and tailored with linguistic and conceptual growth in mind, AAC can pave the way for opportunities and interactions not yet imagined. "Just give me some words" can set in motion a process of co-construction between a caregiver and their child that creates new conversations, new ideas, and new connections.

AAC can offer the opportunity to establish a real relationship with others. It can empower an individual to explore and express thoughts and feelings they may otherwise not be able to and creates space for laughter, love, and a more enriched connection. It can also influence the communication of the caregiver and communication partner. Using AAC is significantly slower than using verbal speech (although this is constantly changing with

Maria reflects on a moment with Will and writes:

> So, Will's adopted as you know. When the talker (AAC system) was still exciting to him, and finally attached to his chair so he could access it at all times, we were driving together, and he asked me, "what's my Mom's name?" I answered, "Maria," but he then said "no, my other Mom." I totally didn't expect that comment but shared her name with him, and he immediately created a button for her and asked me what she looked like so he could select the best icon for her. I'd never have known he was thinking about her if not for the talker . . . and without the talker he may have been really hesitant to talk with me about what some might think are difficult issues.

advancing technology). Meaningful incorporation of AAC means making the time for novelty and creating the opportunities for spontaneity. It means exploring the system together or when the individual is asleep or not using it to get a sense of the potential offered within the system. It also means ensuring there is access to vocabulary and linguistic concepts that allow for the actualization of what is not yet realized.

For the individual and their caregivers as a unit, AAC can represent safety in having access to a method of communication that can be understood by people outside of their small and intimate network. AAC can mean less guessing for caregivers (the people who know the individual best and are most equipped to anticipate unmet needs and wants) as well as for less familiar communication partners. AAC can mean improved self-advocacy. By "giving some words," an interplay between the individual and their partner is established, and the PWUAAC can better advocate for themselves.

For the practitioner and communication partner more familiar with AAC systems, AAC means a medium for shared engagement. By pointing to letters, words, or icons on an individual's AAC system or comparable AAC system (strategies known as aided language stimulation [Goossens', 1989] and AAC modeling [Binger & Light, 2007], which are discussed in subsequent chapters), the practitioner can support language development and meaningful communicative exchanges by using AAC as they communicate themselves. This demonstration of multimodal communication involving AAC establishes an environment of respect and acceptance where AAC is available, visible, and incorporated into one's own communicative exchanges. These actions empower **the practitioner to set the tone for success**. By striving for meaningful and motivating connection, the "hard work" inherent to learning and using AAC in a verbal world can be "good work" and fun as well. The seasoned AAC practitioner can take what is almost second nature to them (creating opportunities for modeling and using AAC and multimodal communication) and extend this comfort to others, empowering more widespread acceptance and understanding of AAC leading to immersion of AAC into a way of being.

In Conclusion

The field of AAC is one that has grown and evolved tremendously as our understanding of AAC has broadened, the application of AAC has become more widespread, and AAC technology has advanced. The AAC tools are always changing, but the task of facilitating an individual's ability to communicate fully and independently in a manner that is meaningful to them remains constant, irrespective of who they are and how they are supported. Each AAC system represents a product where language, vocabulary, and access features are shaped by the uniqueness of the individual. This is consistent with the International Classification of Functioning, Disability, and Health model developed by the World Health Organization that emphasizes collaborative practice with a focus on an individual's functioning in contexts and environments that are relevant to them (American Speech-Language-Hearing Association [ASHA], 2021). With a mindset of discovery, SLPs working in the field of AAC serve

as catalysts for improved communication, meaningful connections, and truly authentic self-expression, where the AAC systems used may change and evolve based on this ongoing interplay between the individual, their partners, and their community.

Case Study: WB

As a group of authors, we use the story of Will, Maria, and Craig to bring to life "the big picture" of AAC. In truth, it is our story and a story of a shared journey influenced by Will, his parents, the communication partners, and environments experienced along the way.

Clinical Profile and Communication Needs

The Individual

At the time of writing this, Will is 17 years old and in 11th grade at a community high school. Will presents with complex communication needs due to his diagnosis of schizencephaly (a rare congenital malformation of the brain that results in a range of cognitive and motor deficits) and has been involved in intensive speech-language, occupational, and physical therapy from a very young age. Will uses a motorized wheelchair and is skilled in accessing technology via direct selection using his dominant hand. Will is a good student and has a small circle of close friends who, like most teenagers, engage with one another via texting. Proloquo4Text® on an iPhone is a backup tool to repair communication breakdowns when his verbal speech is not fully understood. "I can talk like normal now and I love it," Will adds, but we are all aware that early access to AAC has a lot to do with why we are all here sharing what we know of AAC.

Their Communication Partners

Maria and Craig, Will's parents, along with Uncle Owen are Will's closest communication partners. Will, Maria, and Craig have worked together with Hillary and Nerissa since Will was 5 years old in outpatient, school-based, and recreational environments. In the 12 years of this partnership, there have been very many communication partners that have also been part of this journey. Maria and Craig are strong advocates for Will, sometimes in agreement and disagreement with Will (as parents can be). They push Will to be his best self, both as a person and within school. This has facilitated Will's current successes and has also fostered and developed his determination and inner perseverance.

Will has a large extended family and has friends at school as well as many friends met through online gaming platforms. Additionally, Will and his family connect with a number of professionals in academic and medical settings. Will is active in his interactions with these communication partners.

Their Environment

As a family, the Burkes are social and have family and friendship circles that are broad, loving, and accepting. At home, Will's family has made many renovations to their house to make it accessible for Will and to support his independence in maneuvering within his home. The Burkes often entertain family and guests (and host fantastic, themed events). Communication, connection, and laughter are extremely important to this family and their circles.

Additionally, Will is an active member of his school community. He attends grade-level and honors classes, with one being English. This is something he and his team are quite proud of. Will recently took a computer-aided design class and enjoys art classes when they fit in his schedule. Will is more of an active participant in class within small-group or project-based tasks. However, since being in school remotely (due to the COVID-19 pandemic), most classroom participation occurs via typing and using the chat, and Will is able and willing to be more active. Will is very much a member of his high school community. He is included and appreciated, especially given his awesome sense of humor and inquisitive ideas.

Will is also active in the online gaming community. Within this environment, the playing fields are even. He is not first noticed by his wheelchair but rather as a gamer (and a good one at that). He has met and interacted with people all over the United States and Canada through online gaming.

The AAC System

When Will first started with AAC, he used a Vantage Plus (shown in Figure 1–2) from Prentke Romich Company with the 45 One-Hit vocabulary overlay. He quickly switched to a 45 Sequenced overlay where he had access to more vocabulary and various parts of speech as well as tensing and pluralizing options. Will's language exploded at this point, and it was clear his communication partners were no longer teaching Will about the system but rather learning about it from him. To foster Will's exploration, access to the more complex 84 Sequenced vocabulary was linked directly within the overlay (rather than within the system's programming and operational tools). Will was able to alternate between the overlays, teaching himself where to find familiar words and also being able to revert to his more familiar overlay when he could not find a word in the 84 set.

Will transitioned to Prentke Romich's Accent device (as shown in Figure 1–3) with the 84 Sequenced as his main overlay. This was then linked to WordPower (a word-based rather than icon-based overlay) with the keyboard on his main page. Ready access to the keyboard empowered Will to refine his spelling and keyboarding skills, and he developed his use of word prediction as a rate enhancement technique. Both the Vantage Plus and the Accent 1000 were able to be mounted to Will's wheelchair or could be positioned on his desk or table so that the devices were always available and accessible.

Throughout his time working with a voice output device, Will was also working on his speech. He was always encouraged to use multiple meth-

Figure 1–2. Will with his Vantage Plus.

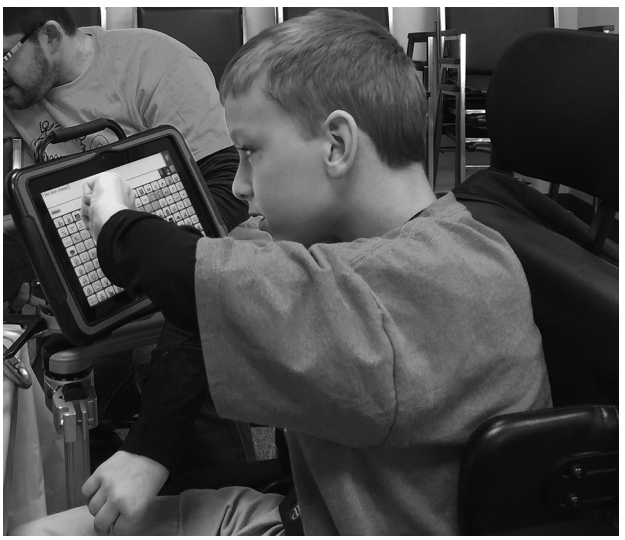


Figure 1–3. Will with his Accent 1000 mounted to his power wheelchair.

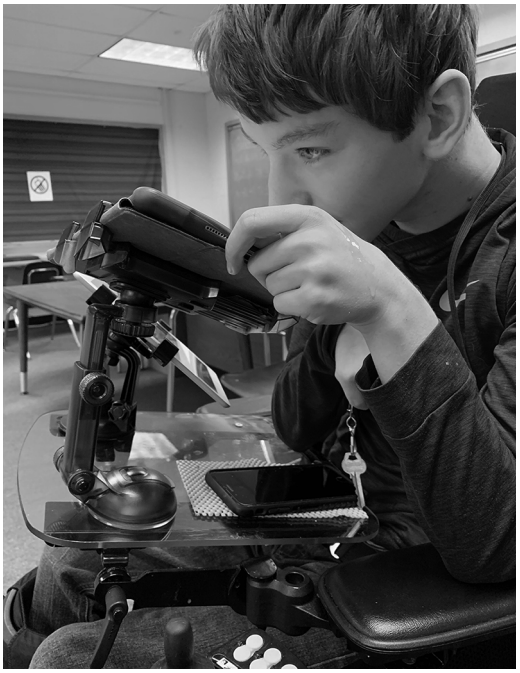


Figure 1–4. Will with his iPhone on his wheelchair tray for ready access to repair communication breakdowns.

ods of communication. As Will's intrinsic methods of communication advanced (such as his verbal speech and gestural communication), he became less reliant on his voice output AAC tools. With the switch to using AAC to repair communication breakdowns rather than his primary mode of communication and his improved typing skills, Will also switched to using Proloquo4Text on an iPad (which was later added to his iPhone). Now, Will is predominantly verbal, which he loves, and uses texting and Proloquo4Text in certain environments and as a backup when not understood (as shown in Figure 1–4).

The AAC Process

The historical review of Will's use of AAC clearly highlights how the AAC tools change over time (and as shown in Table 1–1). This process is not unique to Will but is more reflective of how AAC accommodates the needs of the individual as the individual evolves and progresses over time. The way the AAC systems developed had to do with Will and what was important to him and his family as well as what was needed based on who he was, with whom he needed to communicate, and the places and environments in which this needed to happen. His clinical team was essentially "along for the ride," inviting input from Will and his family (by honoring their wishes and measuring his performance) and using this input to guide high-level clinical decision-making about AAC selection and customization, communication partner training, and implementation.

Next Steps

This shared journey will continue to evolve in ways not yet discovered. Currently, AAC goals are focused on refining independent communication skills, talking on the phone, applying to colleges, introducing oneself to unfamiliar communication partners, fully engaging in an interview, and ordering pizza. College will bring new priorities and new goals where Will, his parents, and his SLP will come together to co-construct the next phase of the AAC plan.