Assessment for AAC

Compass Assistive Technology Service

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Key learning points

• To discover some **theoretical models** to guide clinical assessment for AAC

• To gain an understanding of the **assessment considerations** for AAC

• To feel more confident carrying out AAC assessments
Agenda

- Introduction
- Over-arching frameworks
- General communication models
- Specific AAC skill assessments
- Condition – specific frameworks
Introduction
What is AAC?

AAC = Augmentative and Alternative Communication, is made up of:

Augmentative = supports/adds to speech

Alternative = instead of speech

Communication = in AAC this means using words or symbols to get the message across.
Types of AAC

**Unaided:** no equipment required e.g. facial expression, body language, gesture, signing

**Aided:** some equipment/tool is used

**Low tech:** paper based, not electronic (e.g. books and charts)

**Mid tech:** electronic, batteries required, voice output (e.g. Big Mack, Go Talk)

**High-tech:** most complex, mains charging required, voice output (e.g. Grid Pad)
Who might need AAC?

• AAC use might be short- term (e.g. in intensive care) or long-term.

• From birth (developmental): cerebral palsy, Autism, learning disability

• Acquired: Motor Neurone Disease, Stroke, Head injury, cancer.
Why is AAC needed?
Who Are We?

• Compass is the specialised AAC service for adults in West London
• We work in the community and with inpatients at RHN
• Visit our website for information on our referral criteria and to make a referral
Hub referral system

• CCGs are responsible for providing AAC equipment and software for 90% of those with AAC needs i.e. non-complex and should provide local SLT services with assessment equipment.

• Hub’s focus is not on complexity of technology but the complexity of the assessment.

• Assessment by a hub may not always end in equipment provision.
Referring to your Hub

You MUST read this before you refer
What if my client does NOT meet criteria?

NHS:

IFR= Individual Funding request
https://www.england.nhs.uk/publication/individual-funding-requests-for-specialised-services-a-guide-for-patients/

Local Services Commissioning Toolkit
https://localaactools.co.uk/

Charities:
Motor Neurone Disease Association:
https://www.mndassociation.org/

Sequal Trust:
https://www.thesequaltrust.org.uk/

JankiSaye:
http://www.jankisaye.org/

Gaming- Special Effects:
https://www.specialeffect.org.uk/

Links to all: https://thinksmartbox.com/funding/funding-uk/
AAC Assessment

At an AAC assessment, we would review the following:

- Views of the individuals and their family/those around them
- Medical History
- Language-expressive and receptive
- Cognition
- Previous technology used
- Review of current communication system-low or high tech
- Levels of support around the person
- Persons likes and dislikes
Over-arching frameworks
I-ASC model of decision-making

- [https://iasc.mmu.ac.uk/i-asc-explanatory-model-of-aac-decision-making/](https://iasc.mmu.ac.uk/i-asc-explanatory-model-of-aac-decision-making/)

- Identifying appropriate symbol communication aids for children who are non-speaking: enhancing clinical decision making

- Research led by Janice Murray at Manc Met
Human Activity Assistive Technology Model (HAAT)

- **Human**: represents the skills and abilities of the person with a disability
- **Activity**: a set of tasks to be performed by the person with a disability
- **Context**: the setting or social, cultural and physical contexts that surround the environment in which the activity must be completed
- **Assistive Technology**: devices or strategies used to bridge the gap between the person’s abilities and the demands of the environment

(Cook & Hussey, 2007)
• Motivation, values & attitude towards AAC
• Confidence
• Match between person’s needs and technology
• Involvement in decision-making and ownership

• Technical problems
• Operational speed e.g. generate a message
• Ease of use
• Match between person’s needs and technology

• Communicating across different activities & environments
• Communication opportunities
• Part of routine

Context:
• Perceptions & attitudes of those supporting user
• Knowledge & skills of those supporting user
• Training - family, staff, professionals
• Time constraints

(*Baxter et al, 2012)
General communication frameworks
Talking Mats

- Asks the client a specific question using visual supports
- Can use direct access or partner scanning
- Provides a visual snapshot of the client’s opinion

Examples: likes/dislikes for a low tech book, social media likes/dislikes, people, food, things places etc
Means, Reasons and Opportunities model

- Functional communication requires equal interaction between MEANS, REASONS and OPPORTUNITIES.
- Without the means of communication, you cannot express yourself.
- Without reasons for communication, there is no point in or need to communicate.
- Without the opportunities, there cannot be any communication.

From Della Money and Sue Thurman (1994) Speech and Language Therapists.
Figure 1
Means, Reasons and Opportunities: The original model

Means
(How we communicate)
speech & writing
Non-verbal
signs
symbols
gestures
body language
facial expression
pointing
objects & pictures
"behaviour"
Paralinguistic
volume
intonation
rate
tone
fluency

Reasons
(Why we communicate)
attention
greetings
wants/needs
request information
give information
ask questions
protest/deny
feelings
choices
preferences

Opportunities
(Where, when and with whom we communicate)
partner
time & place
shared language
shared communication system
shared interests
Social Networks (SN) approach

Social Networks: A communication Inventory for the Individuals with Complex Communication Needs and their Communication Partners (Sarah W. Blackstone & Mary Hunt Berg, 2003)

• Social networks are dynamic, change over time, and are keys to success in life.

• People with complex communication needs are at high risk for having restricted social networks.

• This tool gives a clear picture of an individual’s current, daily communication life.
Circles of Communication Partners

Circle 1 Life partners

Circle 2 Good Friends

Circle 3 Acquaintances

Circle 4 Partners who are paid

Circle 5 Unfamiliar partners (staff)
Case study

**Human**
- Used to work in IT and motivated by tech
- Visual difficulties
- Cognition intact
- Language intact
- Some functional upper limb function but should injury causes pain
- Close to family

**Activity**
- Watches comedy TV shows.
- Talking Mat for goals:
  - Greetings
  - Please and thank you
  - Express pain/basic needs
  - Chat to family - ask social questions

**Assistive Technology**
- Large font size
- Symbols
- Mounted in line with visual field
- Alternative access required

**Context**
Lives with wife and 2 sons. Wife works long shifts at a care home. Sons are 21 & 16 – working and going to school. Carers visit 3 times a day.
**Means**
- Low tech alphabet chart
- Thumbs up/down for yes/no

**Reasons**
- Answer questions about basic needs
- Environmental requests e.g. turn the TV on
- Therapy sessions

**Opportunities**
- Wife and sons ask questions about basic needs
- Carers anticipate his needs
Planning a high-tech system

OT assessment – visual screen

Poor visual acuity, loss of peripheral vision, sensitivity to brightness, fixed gaze palsy, double vision

Symbols with phrases
- Central design
- 18 inch screen
- Reduced screen brightness
- Screen mounted within eye line
- Auditory highlight

OT assessment – access

Unable to use touchscreen long-term due to shoulder injury and pain

Unable to use standard joystick

- Engineer produced a ‘switch joystick’ with defined movements
Specific AAC skills frameworks
Light’s model of Communicative Competence

- Light (1989) proposed that AAC users need to develop knowledge, judgement and skills in four interrelated areas.
- It can be useful to consider your student’s skills and areas for development in each of the 4 areas of communicative competence below.

![Communication Competence and AAC Diagram](image-url)
Linguistic competence

• An adequate mastery of the linguistic code.
• For AAC users there are two components - being able to communicate using an AAC code (e.g. text or symbols) and being able to understand the native language.
Operational Competence

• Technical skills required to operate a system. Not just physical but also issues like scanning etc. (motor, sensory and cognitive skills).

• Operating a high tech system may include ability to type, head movement etc.
Social competence

- Knowledge of the social rules of communication - pragmatics etc.
- Very important for turn taking, initiation etc.
Strategic Competence

- The use of compensatory strategies to facilitate communication within restrictions - e.g. use of word prediction, use of a buzzer cell to call for help
Some example AAC related goals

**Operational**
- Student will use the message window after constructing a sentence to speak her whole message at least once per day.
- Student will independently adjust the volume on their AAC device when moving between the class and the playground to accommodate the noise level.

**Linguistic**
- Student will combine 2 words together (e.g. feel happy, go home, like that) using his communication device daily at school.
- Student will independently use her AAC system to communicate for 4 different language functions within the school week eg. requesting, greeting, commenting, protesting.

**Social**
- Student will use a partner focussed question (e.g. What do you think?, How about you? What have you been up to?) to support his participation in conversation at least once per week.
- Student will maintain a conversation with a peer for at least 3 conversational turns, using their AAC system daily.

**Strategic**
- Student will use his AAC device to help communicate his message when his other attempts are not successful, when given an indirect verbal prompt (e.g. I’m not sure what you mean).
- Student will select an appropriate communication method (e.g. AAC device rather than sign) when communicating with unfamiliar staff at the shop.
**CODES framework**

- Simple outcome measure based on the Light Model

<table>
<thead>
<tr>
<th>C.O.D.E.S. FRAMEWORK</th>
<th>Communication Competence</th>
<th>Quick Look View Table (part 1 of 2)</th>
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<tbody>
<tr>
<td>v.2.0</td>
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<td>Shut Down</td>
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<td>Adjectives</td>
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<td>Navigation</td>
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<td>Page Back</td>
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<td>Time Words</td>
<td></td>
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<td>Clear Button</td>
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<td>Question Words</td>
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<td>Message Window</td>
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<td>Sentence Building</td>
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<td>Turning On</td>
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<tr>
<td>Joining Words</td>
<td></td>
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<td>Page Layout</td>
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<tr>
<td>Pronouns</td>
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<td></td>
<td>Programming Independently</td>
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<tr>
<th><strong>Social Roles</strong></th>
<th>+/−</th>
<th>Comments</th>
<th><strong>Social Interaction / Communicative Functions</strong></th>
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<tr>
<td>Initiator</td>
<td></td>
<td></td>
<td>To relay information</td>
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<tr>
<td>Responder</td>
<td></td>
<td></td>
<td>To make requests</td>
<td></td>
<td></td>
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<tr>
<td>Messenger</td>
<td></td>
<td></td>
<td>Use social greetings</td>
<td></td>
<td></td>
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<tr>
<td>Narrator</td>
<td></td>
<td></td>
<td>Answer questions</td>
<td></td>
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<tr>
<td>Director</td>
<td></td>
<td></td>
<td>Asking questions</td>
<td></td>
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<tr>
<td>Presenter/Trainer</td>
<td></td>
<td></td>
<td>Give opinions/comments</td>
<td></td>
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<tr>
<td>Questioner</td>
<td></td>
<td></td>
<td>Make predictions</td>
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<th><strong>Strategic</strong></th>
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<th>Comments</th>
<th><strong>Use of gesture, Signing</strong></th>
<th>+/−</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Use of spelling</td>
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<td></td>
<td>To gain attention</td>
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<td></td>
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<tr>
<td>Make up of new words</td>
<td></td>
<td></td>
<td>To protest/reject</td>
<td></td>
<td></td>
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<tr>
<td>Silences</td>
<td></td>
<td></td>
<td>Engaging in short conversation</td>
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<tr>
<td>Use</td>
<td></td>
<td></td>
<td>Elaborating on a topic</td>
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<tr>
<td>explanation/circumlocution</td>
<td></td>
<td></td>
<td>Ending a conversation</td>
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<td></td>
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<tr>
<td>Request clarification</td>
<td></td>
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<td></td>
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<tr>
<td>Repair a conversation</td>
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</tbody>
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Frenchay Screening Tool

Subtests include the following:

- physical access
- visual acuity
- visual processing
- visual contrast sensitivity
- identifying different types of symbols
- identifying different fonts and words
- categorisation
- word-picture matching
- reading and spelling (with and without symbol support)
- alpha encoding
Test of Aided Communication (TASP)

Test of Aided-Communication Symbol Performance

- Helps you to:
  - design a communication board
  - select an appropriate AAC page set
  - establish appropriate AAC intervention goals for symbolic and syntactic development

Assesses:
- symbol size and number
- grammatical encoding
- categorisation
- syntactic performance
Condition-specific tools
Aphasia assessment tool

https://cehs.unl.edu/aac/aphasia-assessment-materials/

- A range of picture assessments
- Free to download and use

The Multimodal Communication Screening Task for Persons with Aphasia: Picture Stimulus Booklet
The Multimodal Communication Screening Task for Persons with Aphasia: Scoresheet and Instructions
Scanning/Visual Field/Print Size/Attention Screening Task
Aphasia Needs Assessment
AAC-Aphasia Categories of Communicators Checklist
ALS (MND) Functional Comm Scale

<table>
<thead>
<tr>
<th>Communication Ability</th>
<th>Short Term Goals</th>
<th>Baseline</th>
<th>Projected</th>
<th>Achieved Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alerting/Emergency</td>
<td>1. Patient (and caregiver) can demonstrate/describe the method by which patient can alert others, not in his/her immediate environment, to a need or emergency.</td>
<td>-/+</td>
<td>-/+</td>
<td>-/+</td>
</tr>
<tr>
<td>2. Communication Strategies</td>
<td>2. Patient (and caregiver) demonstrate patient and partner strategies (via speech or SGD) that improve communication success, efficiency, speed and reduce fatigue.</td>
<td>-/+</td>
<td>-/+</td>
<td>-/+</td>
</tr>
<tr>
<td>3. Non-Voiced (Low Tech) Communication</td>
<td>3. Patient demonstrates the ability to communicate novel messages via spelling or combining words using low tech AAC method.</td>
<td>-/+</td>
<td>-/+</td>
<td>-/+</td>
</tr>
<tr>
<td>4. Speech Generation</td>
<td>4. Patient demonstrates the ability to communicate a novel message with a voice (speech or SGD).</td>
<td>-/+</td>
<td>-/+</td>
<td>-/+</td>
</tr>
<tr>
<td>5. Communicate with those at a Distance</td>
<td>5. Patient demonstrates abilities to use all the methods s/he requires to communicate with partners at a distance.</td>
<td>-/+</td>
<td>-/+</td>
<td>-/+</td>
</tr>
</tbody>
</table>
Thank you for listening!
Any Questions?

compass@rhn.org.uk
0208 780 4500 ext 5965

https://www.rhn.org.uk/what-makes-us-special/services/compass/
Key References


Key References


Light, J. (1989) Toward a definition of communicative competence for individuals using augmentative and alternative communication systems. Augmentative and Alternative Communication 5:137-144

