



# Assessment for AAC

Compass Assistive Technology Service

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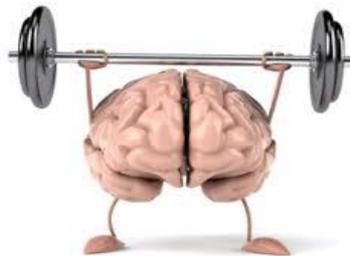


Royal Hospital for Neuro-disability

A national medical charity

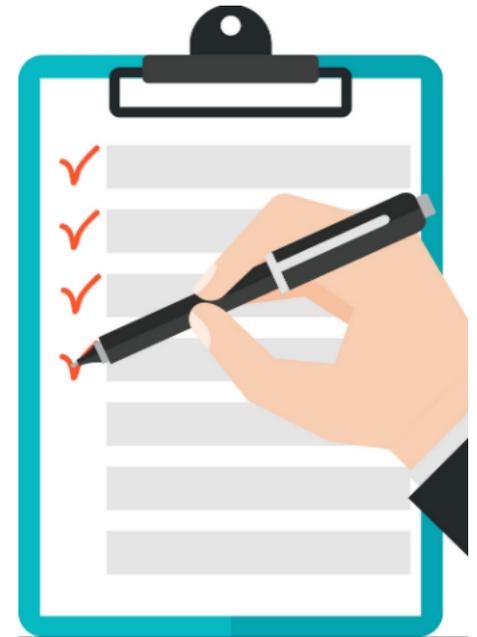
# Key learning points

- 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)

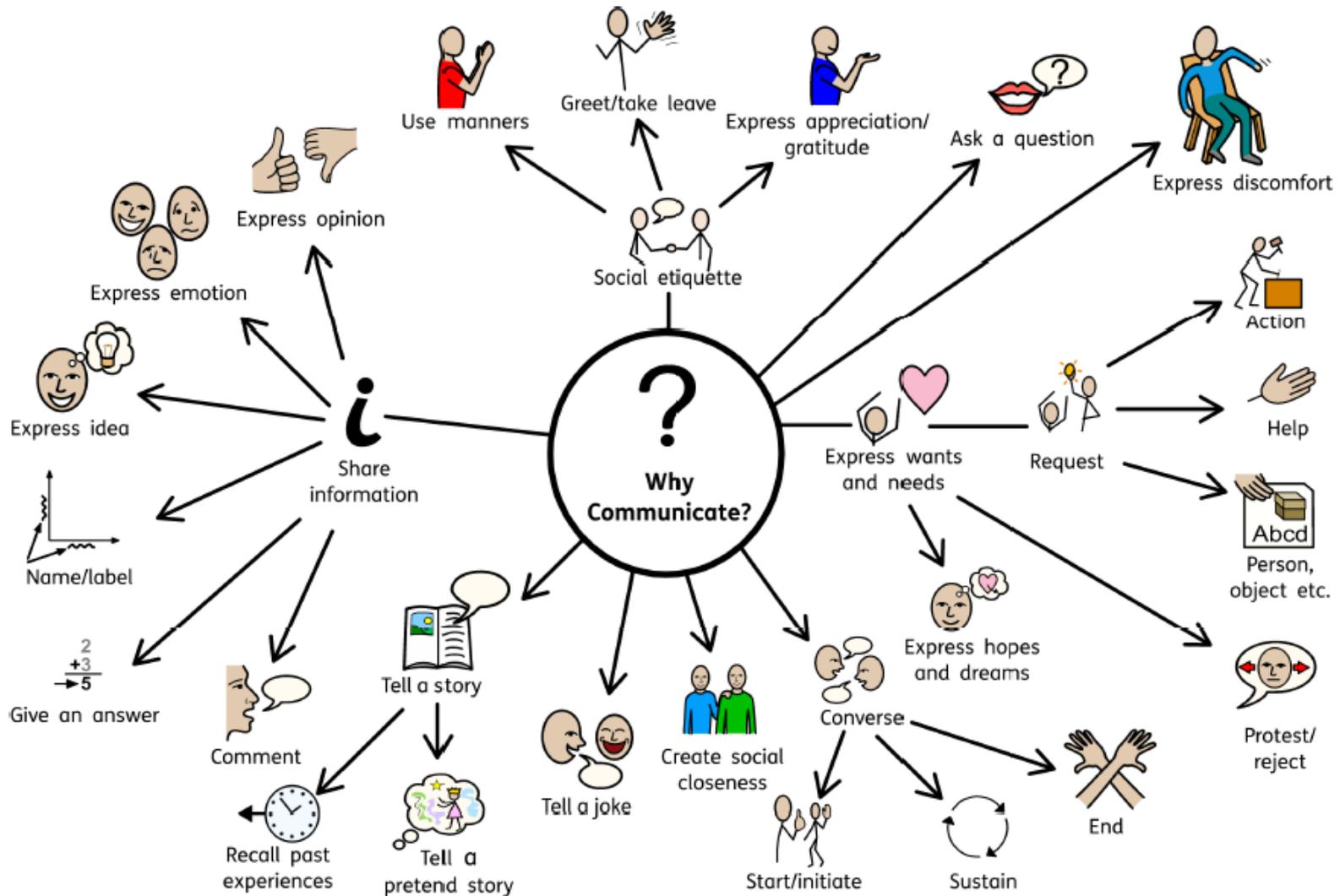
**Mid tech:** electronic, batteries required, voice output (e.g. Big Mack, Go Talk)

**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



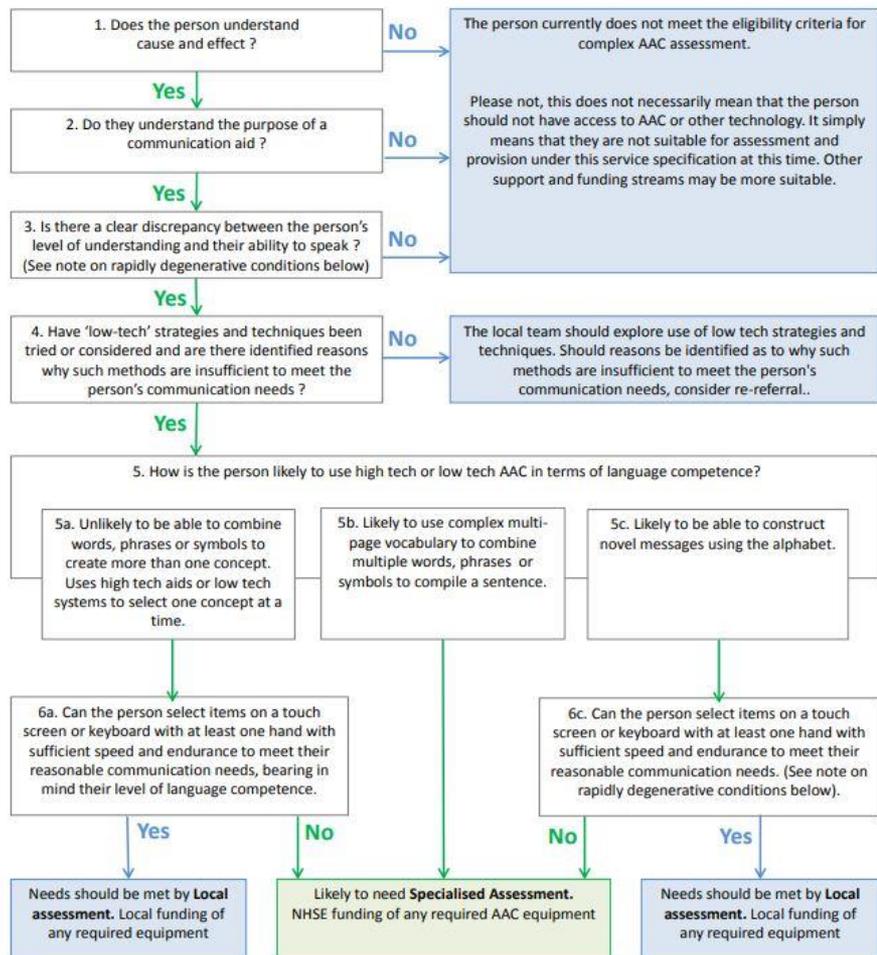
# Hub referral system

- 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.



## Decision chart: Guidance on referral criteria for specialised AAC services

Start here



NOTE: People with **rapidly degenerative conditions** can be referred before they meet all the criteria above, particularly in terms of speech and hand function (boxes 3 and 6c). The referrer and specialised AAC service team should be satisfied that they are deteriorating at a rate meaning that they are likely to meet the criteria within the time a communication aid would be provided. Although this time varies a period of 18 weeks is suggested. It is recognised that this is a difficult determination to make, but evidence of how a person has deteriorated prior to the referral should be considered. Decisions will be made on individual clinical circumstances.

# 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:

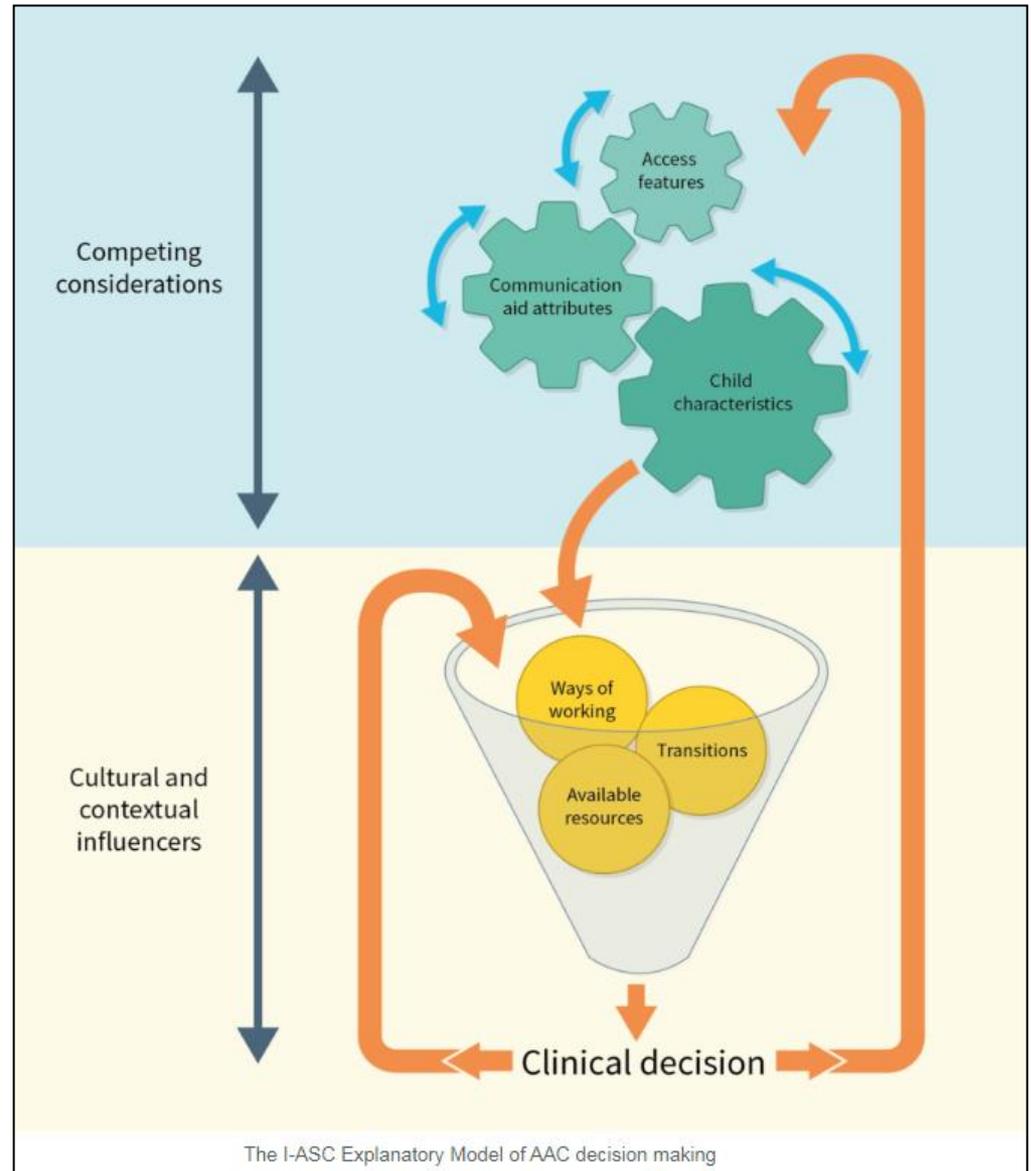
- Views of the individuals and their family/those around them
- Medical History
- Language-expressive and receptive
- Cognition
- Previous technology used
- Review of current communication system-low or high tech
- Levels of support around the person
- Persons likes and dislikes

# Over-arching frameworks



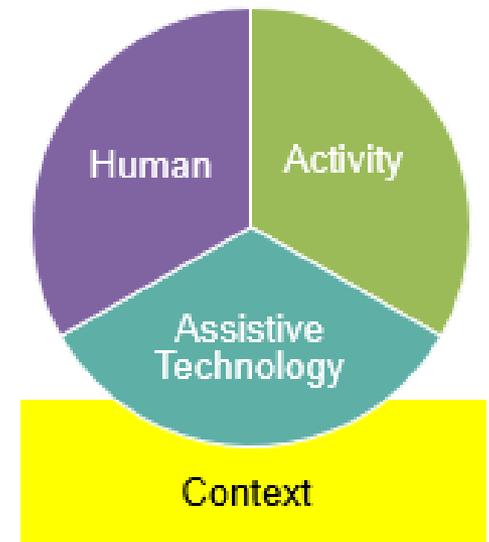
# I-ASC model of decision-making

- <https://iasc.mmu.ac.uk/i-asc-explanatory-model-of-aac-decision-making/>
- 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)

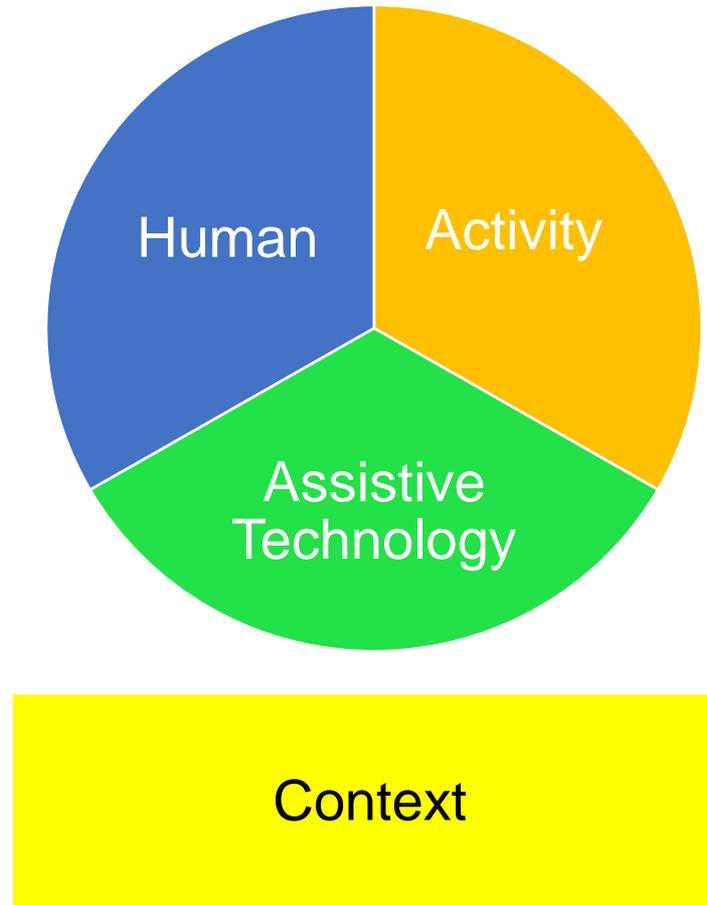
- Human: represents the skills and abilities of the person with a disability
- Activity: a set of tasks to be performed by the person with a disability
- Context: the setting or social, cultural and physical contexts that surround the environment in which the activity must be completed
- Assistive Technology: 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*.

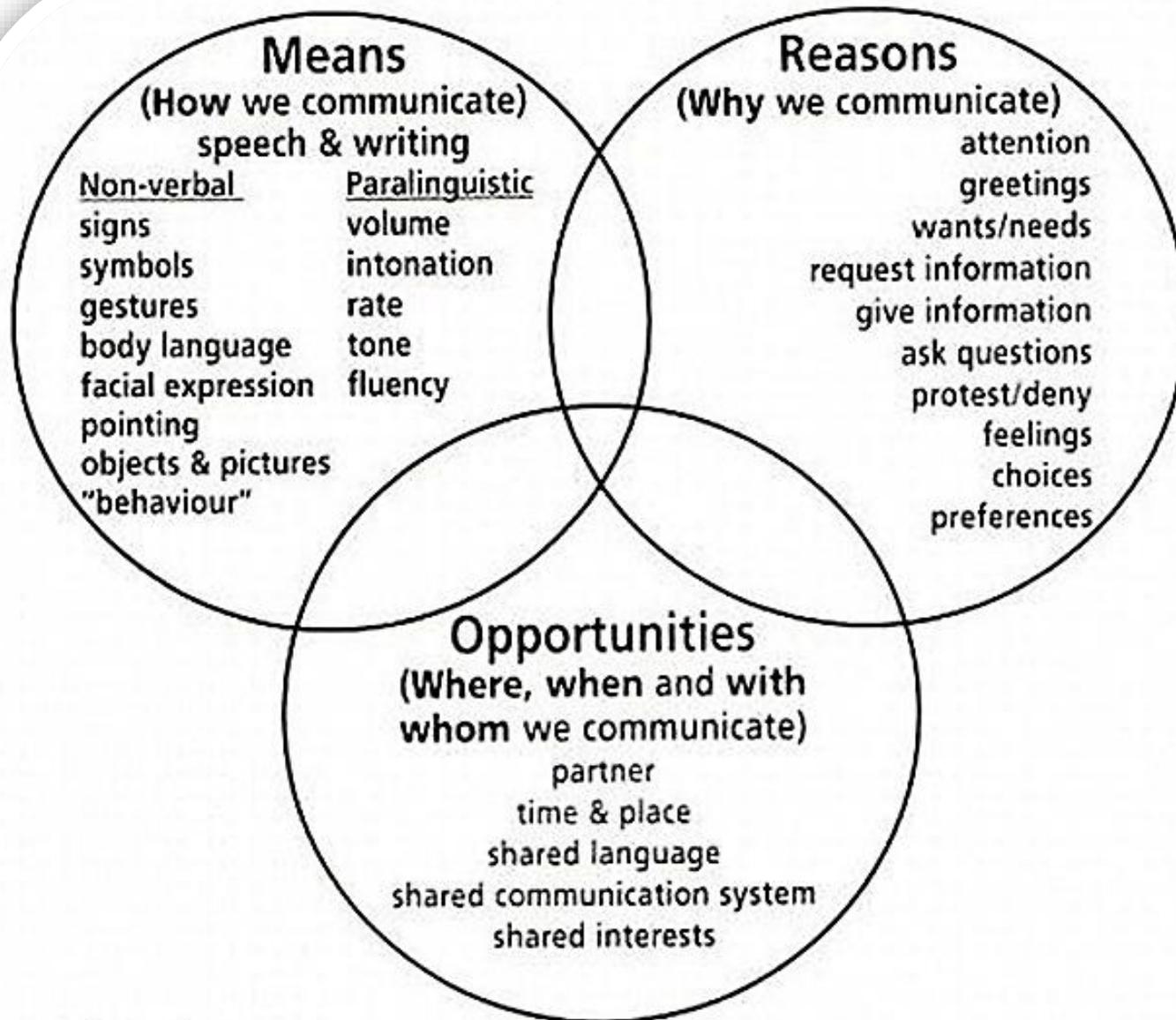
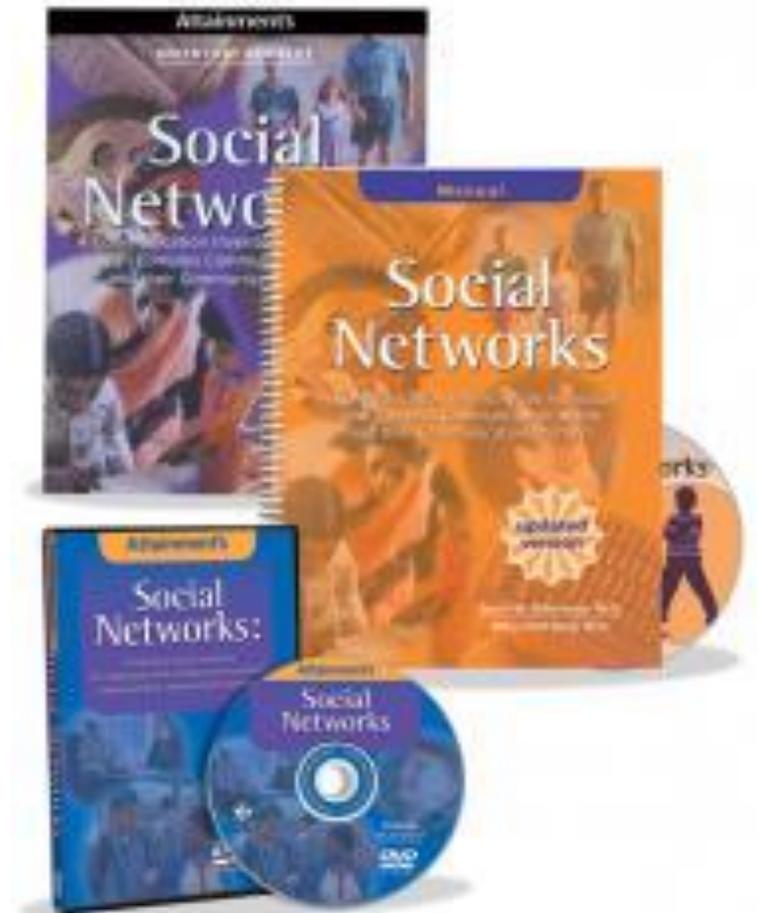


Figure 1  
Means, Reasons and Opportunities: The original model

# 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**

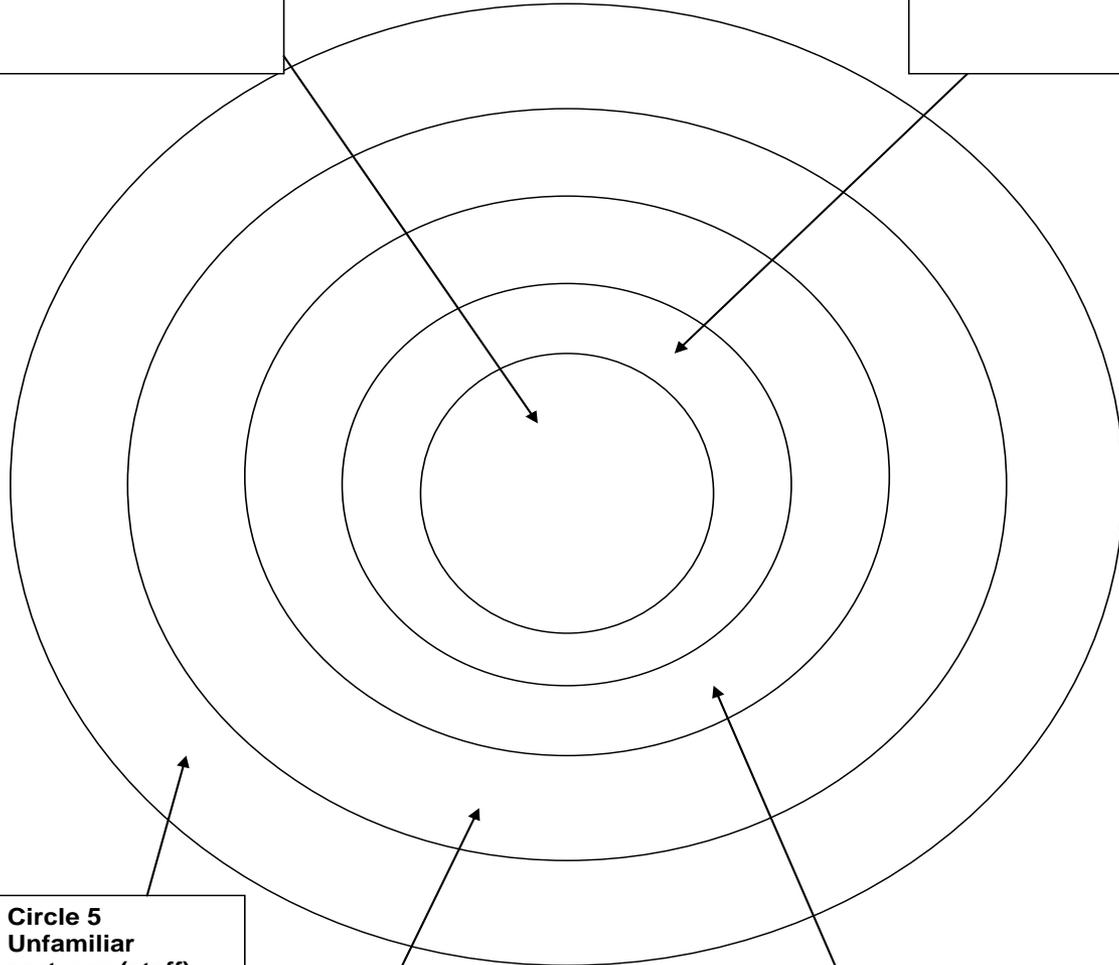
**Circle 1 Life partners**

**Circle 2 Good Friends**

**Circle 5 Unfamiliar partners (staff)**

**Circle 4 Partners who are paid**

**Circle 3 Acquaintances**



# Case study

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



Watches comedy TV shows.

Talking Mat for goals:

- Greetings
- Please and thank you
- Express pain/basic needs
- Chat to family - ask social questions

- 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

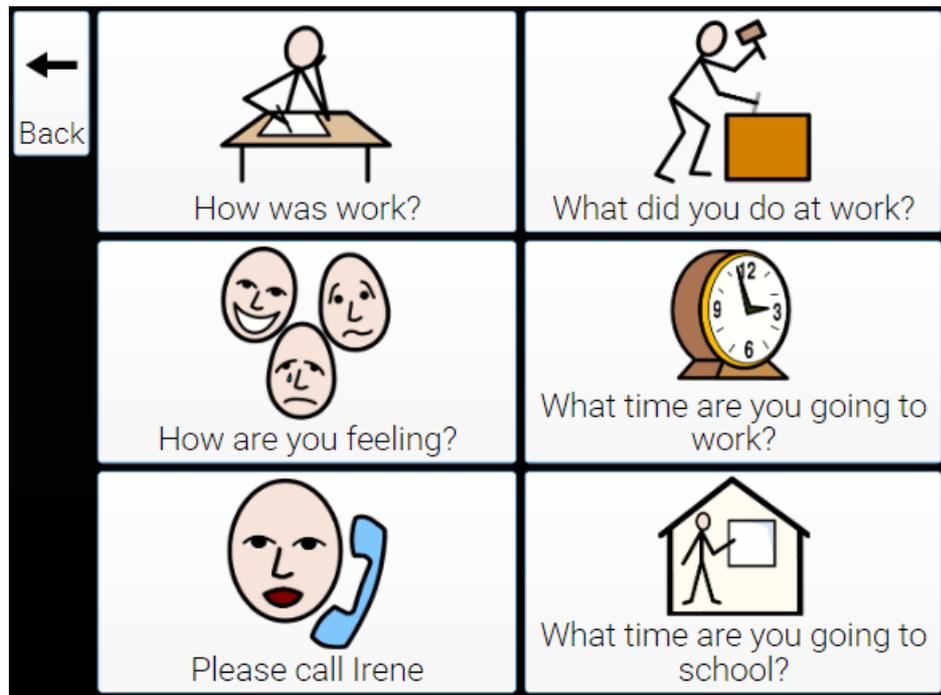
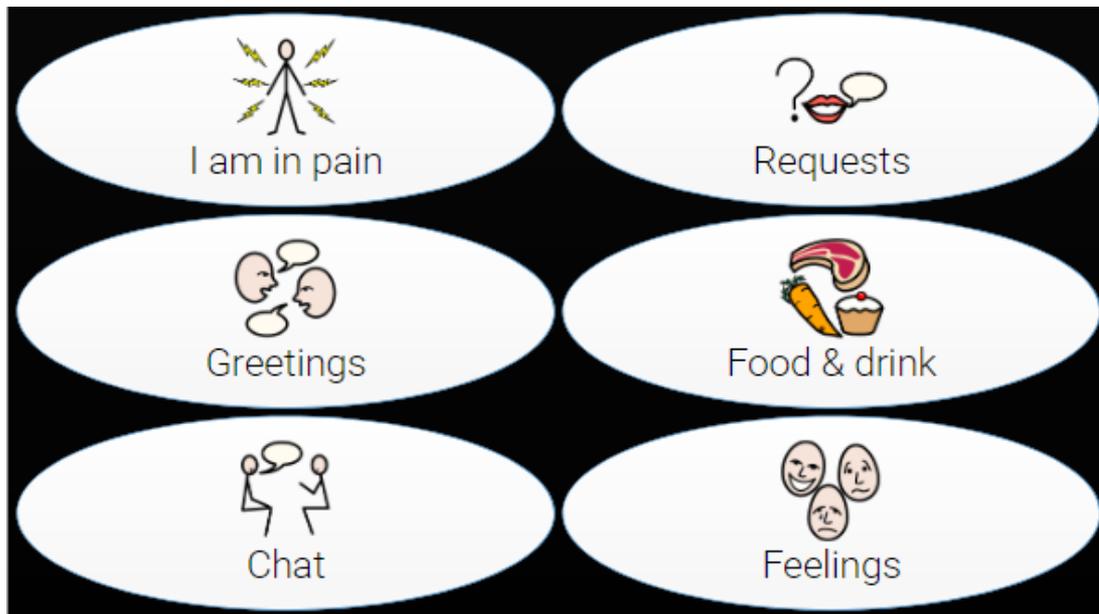


Unable to use touchscreen long-term due to shoulder injury and pain

Unable to use standard joystick



- Engineer produced a 'switch joystick' with defined movements

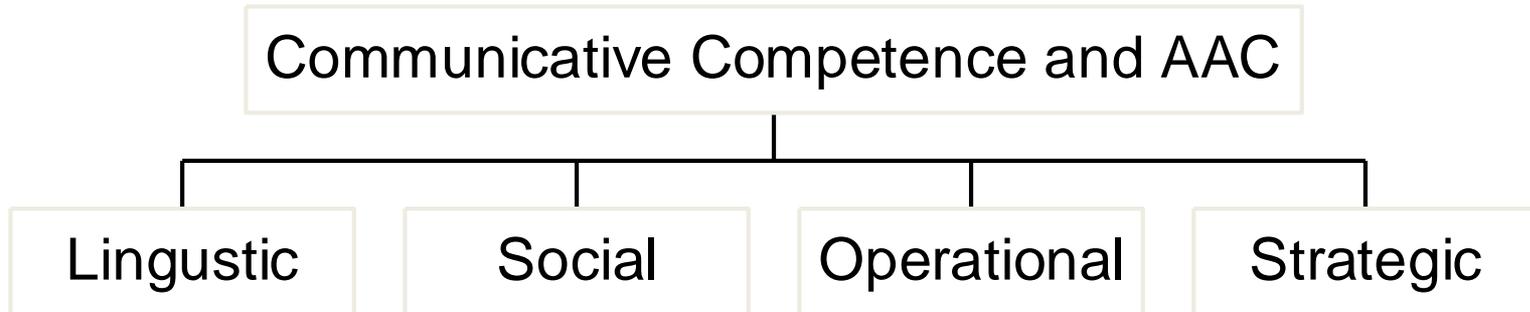


# Specific AAC skills frameworks



# 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



# 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.

 come with me venga conmigo	 take my hand toma mi mano	 Do you understand? ¿Entiendes?	 sit down sentarse	 stand up levantarse
 listen escuchar	 lie down acostar	 sit on the bed sentado en la cama	 doctor visit examen médico	 visitors visitante
 hungry hambriento	 fever fiebre	 sick enfermo	 nauseous malestar	 runny nose nariz que gotea
 How are you? ¿Cómo estás?	 pain dolor	 sore throat dolor de garganta	 stomachache dolor de estómago	 headache dolor de cabeza

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www.wordsarewings.com

The Picture Communication Symbols C1981-2008 by Mayer-Johnson LLC.  
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<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>1</b>	<b>2</b>	<b>3</b>	Directions: When ____ needs to repair communication you can use this board. Tell ____ you need him to try to spell the message. Point to each row and ask ____ yes or no, is what he needs in that row. If no repeat on the next row down the page. If yes, ask one at a time across each column if it is the one he needs.
<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>4</b>	<b>5</b>	<b>6</b>	
<b>I</b>	<b>J</b>	<b>K</b>	<b>L</b>	<b>M</b>	<b>N</b>	<b>7</b>	
<b>O</b>	<b>P</b>	<b>Q</b>	<b>R</b>	<b>S</b>	<b>T</b>	<b>8</b>	Use context clues and your knowledge of ____ to help him.
<b>U</b>	<b>V</b>	<b>W</b>	<b>X</b>	<b>Y</b>	<b>Z</b>	<b>9</b>	
new word 	end of word 	end of sentence 	thank you 	you're right 	mistake 	zero 	

# 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.



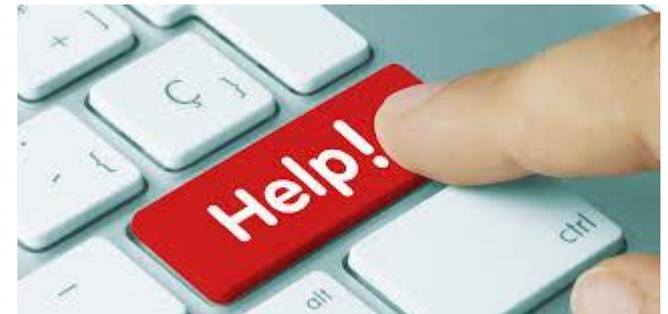
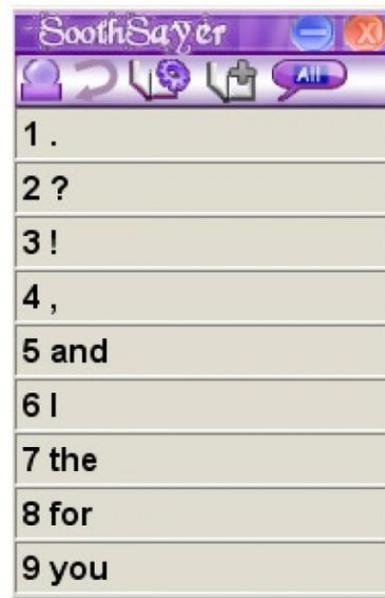
# Social competence

- 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.

### Example Goals

### 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

<b>C.O.D.E.S. FRAMEWORK</b> v.2.0   		<b>Communication Competence</b> To provide an overview of existing skills using AAC systems			Quick Look View Table (part 1 of 2)		
		<b>Name:</b>				<b>Date:</b>	
Linguistic	+/-	Comments	Operational	+/-	Comments		
Nouns			Access				
Verbs			Shut Down				
Adjectives			Navigation				
Prepositions			Page Back				
Time Words			Clear Button				
Question Words			Message Window				
Sentence Building			Turning On				
Joining Words			Page Layout				
Pronouns			Programming Independently				
Social Roles	+/-	Comments	Social Interaction / Communicative Functions	+/-	Comments		
Initiator			To relay information				
Responder			To make requests				
Messenger			Use social greetings				
Narrator			Answer questions				
Director			Asking questions				
Presenter/Trainer			Give opinions/comments				
Questioner			Make predictions				
Strategic	+/-	Comments	To tell jokes/riddles				
Use of gesture, Signing			To gain attention				
Use of spelling			To protest/reject				
Make up of new words			Engaging in short conversation				
Silences			Elaborating on a topic				
Use explanation/circumlocution			Ending a conversation				
Request clarification							
Repair a conversation							

# 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



sleep



eat



shoes



light

[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

Patient Name: \_\_\_\_\_

Date: \_\_\_\_\_

## ALS Functional Communication Scale

Communication Ability	Short Term Goals	Baseline	Projected	Achieved Today
		G9174	G9175	G9176
1. Alerting/Emergency	1. Patient (and caregiver) can demonstrate/describe the method by which patient can <b>alert</b> others, not in his/her immediate environment, to a need or emergency.	- / +	- / +	- / +
2. Communication Strategies	2. Patient (and caregiver) demonstrate patient and partner <b>strategies</b> (via speech or SGD) that improve communication success, efficiency, speed and reduce fatigue.	- / +	- / +	- / +
3. Non-Voiced (Low Tech) Communication	3. Patient demonstrates the ability to communicate <b>novel messages</b> via spelling or combining words using <b>low tech AAC</b> method.	- / +	- / +	- / +
4. Speech Generation	4. Patient demonstrates the ability to communicate a <b>novel message</b> with a <b>voice</b> (speech or SGD).	- / +	- / +	- / +
5. Communicate with those at a Distance	5. Patient demonstrates abilities to use all the methods s/he requires to communicate with partners <b>at a distance</b> .	- / +	- / +	- / +



Thank you for listening!  
Any Questions?

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0208 780 4500 ext 5965

<https://www.rhn.org.uk/what-makes-us-special/services/compass/>

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