



AAC - (Augmentative and Alternative Communication) -

**Guidelines for schools,
parents and others.**



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WHAT IS 'AUGMENTATIVE AND ALTERNATIVE COMMUNICATION'?

Augmentative and Alternative Communication (AAC) is the term used to describe methods of communication which can be added to the more usual methods of speech and writing, when these are impaired or delayed. (See Glossary for Lloyd and Blischak's 1992 definition.)

AAC includes unaided systems, such as gesture and signing, as well as aided techniques, which range from picture charts to the most sophisticated computer technology currently available. AAC can be a way to help someone understand, as well as a means of expression.



Why would people use AAC?

Some people, both children and adults, find communication difficult because they have little or no clear speech. There are many reasons why this might be the case: for example, as a result of cerebral palsy, brain injury, learning disability whether mild or profound, dyspraxic or autistic spectrum difficulties, specific language difficulties or sensory impairment. Any combination of these may also co-exist, compounding the difficulties.

The idea behind AAC is to use the child's abilities, whatever they are, to compensate for their difficulties. AAC makes communication as quick, simple and effective as possible when speech alone does not work.

Although we all use aspects of AAC from time to time (e.g. waving goodbye instead of saying it, pointing to a picture or gesturing to make yourself understood in a foreign country) some people rely on AAC all of the time.

Helping children to communicate improves their quality of life. It improves their opportunities, education, social life, friendships and independence. For many children who have impaired language, AAC is a stepping-stone to communication and will be faded out once progress in language or speech has been made.

For a few, some method of AAC may remain their main route to communication throughout life.

Adapted from 'What is AAC?', one of a series of 'Focus on...' leaflets from Communication Matters, available through www.communicationmatters.org.uk

Assessment for AAC

Assessment of a child or young person's need for augmentative and alternative communication, or AAC, should be carried out through a team approach.

The team could include the child's parents, speech and language therapist, teaching team, occupational therapist, educational psychologist and any other relevant professionals such as specialist teachers.

In a few cases, advice from the CALL Centre may be required (see footnote).

When considering which AAC system will best suit the child, the following factors should be taken into account:

- The contexts within which the child will use the system, including the range of people he / she will want to communicate with
- The child's developmental level and the likely prognosis of speech and language development
- How the chosen system will be able to meet needs over time, evolving into an age-appropriate system as the child grows older

Other considerations should include whether the system will augment all or only one aspect of communication. For example, it may be used only as a teaching tool to facilitate understanding in a group situation, or to teach new concepts such as opposites, big / little, heavy / light.

The CALL Centre, which is based at the University of Edinburgh, offers a specialist assessment, training and advisory service for AAC users. Referrals are made through Children's Services.



The following 'case studies' were created to illustrate the use of AAC in the preschool years. They do not represent actual children, and the names are fictitious too:

Anne has delayed language because of general learning difficulties and, in particular, poor auditory memory (in her case due to Downs Syndrome). Since she was a baby her parents have used Makaton signs to accompany spoken key words e.g. 'Do you want a biscuit?' while making the sign for biscuit.

The signs give a visual 'peg' on which to hang the spoken word in her memory. A sign lasts longer than the brief auditory experience of a spoken word. Anne's family and nursery staff have all learnt enough Makaton signs to be able to communicate with her, and they teach new signs as they are needed.

She now makes several signs spontaneously to ask for things or to comment, and is beginning to combine two or three together. This is helping to 'bring on' Anne's speech through the motivating feedback of experiencing successful communication; many children begin to use spoken words once they have reached a certain vocabulary level in Makaton.

Good communication procedures have been put into place so that home and school can keep each other aware of new signs. These include a home- school diary and brief monthly meetings.

The nursery staff also use some Makaton signs with all the children in the group, for example at snack time and to accompany stories and songs, so that Anne's interaction with other children will be facilitated.

This is part of the school's inclusion policy. Staff find that some of the other children who have poor attention and language skills are also benefiting from the use of Makaton.

Bob's language is delayed because of autistic spectrum difficulties. This arises more from lack of awareness of the function of communication rather than difficulties with speech itself.

At different ages and developmental levels, objects of reference, photos or Picture Communication Symbols (PCS) are used to help the child to get needs met (e.g. the PECS approach) or to explain routines to the child by using a visual timetable.

To begin with Bob was shown an object of reference or a photo of a daily activity to help him make sense of the day's events. He is now using a sequence of PCS symbols (produced from BoardMaker software) to make choices and to follow the nursery curricular timetable.

Candy has cerebral palsy. She understands the function of communication and tries to communicate but has no speech.

Candy was initially taught cause and effect with simple switch-operated battery toys and touch screen / switch-operated computer programmes.

Now she uses a 'Voice Output Communication Aid' (VOCA) such as a Big Mack to give her a means of joining in stories, songs, and social routines in her playgroup.

Three year old Dermot was born profoundly deaf and even with the use of powerful hearing aids he is unable to hear his own and other people's speech clearly enough to have developed effective speech.

Dermot's family have opted to learn to sign and, being a visual means of communication, Dermot is experiencing no barriers to acquiring a language in which he can communicate easily with other signers and in which he is able to think and form concepts.

Sign is Dermot's first language for communication and learning and it will give him a firm base from which to learn English and in the future perhaps other languages.

Eddie is a little boy who has significant difficulties with speech production. He was referred to the Speech and Language Therapist by his GP at his mother's request.

He has good understanding of language and, at home, is an eager communicator. He has real difficulty in producing speech sounds accurately and finds it hard to make himself understood.

He has, in the past, been reluctant to speak outside of home and often reduced his language to single words so that he could be understood. He was assessed as having Oral Verbal Dyspraxia which is a difficulty sequencing the movements to produce speech sounds.

Makaton signing was introduced to give a means of communication to support his speech and to increase his confidence.

Children with a visual impairment may also experience any of the above difficulties or disorders. This has implications for environmental adaptation, low vision aids, etc.

The above are examples of only a few specific conditions. They were selected to illustrate AAC methods which however have a far wider application, meeting a wide range of needs.

To conclude, the main issues for consideration by parents and staff are:

- assessment
- age-appropriateness and development with age
- home-school links
- training for all involved (including non-teaching staff), both initial and ongoing for sustainability
- whole-class / whole-school inclusive policy

Francesca is an enthusiastic little girl with good skills in many areas. However her language ability is significantly more restricted than her other development.

On assessment Francesca was found to have marked difficulties in understanding language and in being able to use language expressively. It was felt that she has a Developmental Language Disorder.

A programme of language development has been implemented supported by Makaton signing to which she is responding well. Francesca also attends her local nursery and liaison with staff and parents about plans and approaches is ongoing.

For a communication system to be fully successful there needs to be a real commitment to a whole-school approach. This should be reflected in policy documents at both authority and school level.

Whole school context:

Once the AAC system for a child or young person has been selected, whole-school planning will ensure that it is functional in every area of school life.

These are the main aspects which need to be considered:

- each curricular area
- social opportunities e.g. playground, dining hall, school bus
- personal care times e.g. toileting, changing for PE etc
- home-school links

All adults who work in the school and the pupil community will need training to become fully familiar with the AAC system.

Setting up and sustaining the system:

The team involved in assessment will identify what training is required, who needs it, and who will deliver it. They will also be involved in the ongoing review of the system, taking into account the changing abilities of the child and the changing demands which will be made on the communication system as the child goes through the school.

The age-appropriateness of the system should always be borne in mind.

Resources:

There are ongoing resource implications. Regular agreed staff time is needed for planning and preparation of materials, practice and revision and for collaboration and joint working.

This needs to be built into the programme to ensure its sustainability. Resources may range from computer software such as BoardMaker to low-tech items such as laminator pouches, Velcro and colour printer cartridges.

In some cases adaptations to the physical environment may be required e.g. to improve the acoustic environment, lighting levels, or use of colour and texture.

The importance of consistency:

If an AAC system has been agreed for a child or young person, it is important to recognise that this system should be available to them in other settings they spend time in on a regular basis, for example a club, out of school activity, or a respite setting.

Key adults who work with the child or young person in these settings should be included in the planning to provide the AAC system, and be offered appropriate training.

These individuals can then provide a link between the child or young person's school and those working in the social or respite setting, and contribute to the ongoing review of this AAC system.



The emphasis should be on a consistent approach to supporting the communication needs of children and young people in all settings.

In this way the AAC system becomes a familiar part of the day-to-day experience of the child or young person, making sure that they can express their needs and giving them more opportunity for social interaction.

Aided Communication (also known as Communication Aids)

This is how we describe methods of communication which involve some additional equipment – a picture chart, a computer or special communication aid.

This may be 'low-tech' or 'high-tech'. Both low- and high-tech systems can be used by people who are unable to spell or read, as well as by people who are highly literate.

For those with an additional visual impairment they can be further enhanced by colour and texture.

- Low-tech communication systems include a pen and paper to write messages, an alphabet chart, a book with picture symbols or photos, or book/ chart with symbols. Low-tech aids take many forms but they do not need a battery to operate them.
- High-tech communication systems need at least a battery to operate them. They range from simple systems (e.g. single message devices, pointer boards, toys or books which speak when touched) to sophisticated systems (e.g. specialised computer programmes, electronic aids which speak or print).

Some people need to use special devices to control their AAC systems such as a switch or a specialised pointer.

The principles of assessment, implementation and evaluation are vital. AAC systems can only be introduced to an environment with the full involvement of all staff / carers / family.



Alternative communication

Is an approach that is clearly a substitute for (or alternative to) natural speech and / or handwriting' (Lloyd and Blischak 1992) e.g. British sign Language for deaf people.

Augmentative communication

Is an approach which is clearly an addition to speech or writing' (Lloyd and Blischak 1992) e.g. pointing to picture symbols.



Braille

Children who are 'educationally blind' learn to read Braille as an alternative to print.

These children must rely on tactual abilities and auditory skills. It is important to note these skills do not develop automatically in children who are blind and training from an early age is necessary to equip children with these skills.

Activities that will develop flexibility, dexterity and strength in their wrists and hands are essential.

Opportunities to develop light finger touch, line-tracking skills and skills in tactual perception -e.g. discriminating textures and shapes -requires much training.

While the general sequence of development of literacy in children who are blind emerge from the same processes which shape literacy for their sighted peers, they will have had less opportunity to explore their environment and to learn through incidental learning and unplanned experiences.

Activities designed to develop meaningful language based on concrete experiences are important.

Braille is based on a 'cell' of six raised dots arranged like a six on a domino. These six dots can be arranged into 63 different patterns.

These patterns not only make up the alphabet and punctuation signs but are also used to create signs for whole words or groups of letters called contractions.

Most children who write through Braille begin by using a mechanical Braille Writer called a Perkins Brailler. Later, children may use electronic Braille writing devices which have a tactile display and/or speech output.

Most of these machines can store information which can be translated into print. Braille users will usually be taught to touch-type using a conventional QWERTY keyboard.

Software is available to enable children to record and retrieve information using synthesised speech.

Eye pointing

This is perhaps the simplest method of communicative expression, after vocalisation.

For those with a very early level of development or with physical impairments, it can form the basis of a useful communication system.

The communication partner offers choices (using objects, objects of reference, pictures or symbols, depending on developmental level) in positions to the left, right, top and bottom of the child's face, in such a way that it is easy for the facing observer to follow the direction of the eye point.

This can be done informally by holding up a choice in each hand, or more formally by using special communication frames designed for the purpose (E-tran frame).

Success with this early communication system may be developed over time into a reach-and-touch system for expressing choice, such as a communication board, or to a more high-tech system such as a head pointer plus computer.

Objects of Reference

Objects of Reference are a whole or partial representation of objects which indicate activities or people. They can be used functionally to develop communication skills.

They are now used widely with individuals with multiple disabilities. Objects of reference can represent a range of concepts, e.g. swimming – a piece of towel, the ballpool – one of the plastic balls, lunch – a dinner mat.

For a child with visual impairment, objects of reference may need to be further enhanced, e.g. by varying shape or texture, by enhancing colour.

They can be used to help the individual to make sense of activities, remember, understand, communicate, make choices and anticipate.

The person involved in teaching must work with the individual in his/her everyday environment and use the Objects of Reference in a meaningful way.

www.ace-north.org.uk/resources



Personal Communication Passports

The CALL Centre (Edinburgh) has developed Personal Communication Passports. This is a way of documenting and presenting, in a 'user friendly' way, information about children who are unable to speak up for themselves.

The passport is written from the child's point of view and gives the child ownership of information. It may include family information, photos and questions to promote interaction with the child.

It can also be useful when the child is being cared for in a different environment or taught by someone different or to facilitate smooth transitions.

www.callcentrescotland.ed.ac.uk Call Centre, University of Edinburgh, Paterson's Land, Holyrood Road, Edinburgh, EH8 8AQ 0131 651 6236

Picture Communication Symbols (PCS)

This is one of the sets of picture symbols designed to be used for communication and language teaching. PCS are used as a resource for a wide range of communication activities. They can be used with or without words and are available in different sizes.

Adaptations for children with visual impairment may include making the symbols tactile and reducing detail. The best way of producing the symbols is through use of computer software such as BoardMaker or Clicker 4 plus additional PCS metafiles.

Picture Exchange Communication System (PECS)

This is an AAC system developed for use with young children whose difficulties lie on the autistic spectrum, or who have other social-communication difficulties. They may have no functional speech. Children using PECS are taught to approach and give a picture of a desired item or activity to a communicative partner in exchange for the item or activity.

By doing so, the child initiates a communicative act for a concrete outcome within a social context.

It is used in a variety of settings – home, classroom and community.

Over time PECS has been modified and is now used with individuals of all ages, including adults, and with a wide range of communication disorders.

Adaptations for children with visual impairment may include making the pictures tactile and reducing detail.

www.pecs-uk.com Pyramid Educational Consultants UK Ltd., 17 Prince Albert Street, Brighton, BN1 1HF 01273 728888

SIGNING SYSTEMS:

British Sign Language (BSL)

BSL is a complete and highly expressive visual language. It has its own grammar, which does not correspond to that of spoken languages. Profoundly deaf people think visually and sign is now widely recognised as their natural language.

Sign promotes early and effective communication for deaf children and it is generally acknowledged that it can be a foundation on which to introduce spoken / written language.

Cued Speech

In Cued Speech hand cues are used beside the speaker's mouth to help the lip reader to identify the sound being spoken, many speech sounds being difficult to see on the lips or being similar to others.

Hands On signing / Tactile signing / Hands over Hands signing

Hands On signing is a method of communication for deafblind people which involves the use of British Sign Language (or whichever sign system is used in the country e.g. Auslan – Australian Sign Language).

The deafblind person follows the signs by placing their hands over the hands of the signer so that they can feel the handshape, position and movement of the signer's hands to understand what is being signed.

People who have Ushers Syndrome often use this form of communication when their sight diminishes.

Makaton

Makaton signs are based on British Sign Language. Key words are spoken at the same time as they are signed.

The system is divided into stages and signs are selected on a personalised basis for each child. Highly motivating signs are taught first and used as single word utterances.

The child is gradually encouraged to link them together. Makaton is widely used with preschool language-delayed children. Where a child has a visual impairment further adaptations may be necessary e.g. wearing brightly coloured gloves, enhancing lighting levels whilst controlling glare.

In 1989 The Makaton project developed further signs and resources so that children can access the curriculum. In Part 1 of this resource there are approximately 600 words covering early levels of English, Maths, Science, Geography, History and Technology.

www.makaton.org *The Makaton Vocabulary Development Project, 31 Firwood Drive, Camberley, Surrey, GU15 3QD 01276 61390*



On-body signs

This is an approach to interactive signing for children with severe and complex learning difficulties and an additional visual impairment.

The idea is to share and build personalised signs or movements already used by the child in communicative ways.

It is important to always warn the child when you are going to sign on his / her body; for example you can gently touch his/ her shoulder at the beginning of the conversation to establish initial contact. Be careful not to take the child by surprise.

The Canaan Barrie Sign system is an example of on-body signs.

'Movement, gesture and sign' by Mary Lee and Lindi MacWilliam Published by Royal National Institute for the Blind 1995 reprinted 1996. Learning Together 2002.

Paget Gorman Signed Speech (PGSS)

PGSS is a sign system where signs are used to represent exactly English vocabulary and grammar.

It can only be taught by qualified users and is always used with speech.

PGSS is flexible and has been used with deaf children and others with communication difficulties in specialist language units around Britain.

webmaster@pgss.org **Paget Gorman Society,**
2 Downlands Bungalows, Downlands lane,
Smallfield, Surrey, RH6 9SD

Signed English

This is a teaching tool rather than a sign language. It has 14 different markers which are used to show important parts of grammar, e.g. plurals, which are not visible with lip reading.

Signed English uses the vocabulary of British Sign Language but the word order of English.

Signs must be made exactly with the spoken words and it is important not to slow down or distort speech to fit the signs in. Some words are finger spelt to ensure the correct word is communicated.

Deaf-ability not Disability – A Guide for Parents of Hearing Impaired children, by W. McCracken & H. Sutherland (1991) Multilingual Matters

Sign Supported English

Signs of British Sign Language are used to sign the key words of spoken English as it is being spoken, along with facial expression and body language.

It is quick and relatively simple to learn and so is readily used by hearing parents and teachers of deaf children.

Visual supports

For children who have difficulty using and understanding spoken language, visual supports can be used to communicate practical, social and emotional information.

Children with autism, who are often visual thinkers and have difficulty processing information that is given to them verbally, can find visual supports particularly beneficial.

“The use of visual communication tools is not determined by a student’s ability to talk. These tools are valuable with both verbal and nonverbal students.” (p. 19 Linda Hogden 1995 Visual strategies for improving communication).

Examples of visual supports include:

- Visual schedules and timetables
- PECS
- Checklists
- Visual behaviour supports
- Written ‘scripts’
- Social stories and cartoon conversations
- Information sharing e.g. a small bag containing items that represent activities a child has been engaged in going between home and school.

Voice output communication aids (VOCAs)

VOCAs range from simple devices for single messages to more powerful complex programmes, usually a specialised computer, with a large vocabulary which may be played back in a synthetic voice.

The user may access it by a device such as a headpointer.

A simple VOCA is a device where an adult records a short speech utterance, which can then be played back by the child hitting or pressing it at the appropriate time.

Using a simple VOCA gives a child with impaired speech the means of making requests or joining in with stories, songs, and social routines.

A popular example is the Big Mack. Children are first taught cause and effect with stimulating switch-operated battery toys and touch screen / switch operated computer programmes.

The use of strong colours and textures may be required for children with a visual impairment.

