

Types of Augmentative and Alternative Communication (AAC)

Pointing and Gestures

Pointing and gesturing are things we all do to help our communication. We all tend to use them such as when we shrug our shoulders to say 'I don't know', or thumbs up to say 'Good work'.





They are also a useful means of communication for children who have difficulty speaking. Most people understand what pointing and gestures mean.

Some children with physical disabilities may look at things (eye-pointing) as a way of pointing instead of using their hands. They may also use full body movements to show agreement or rejection of what has been said. For example, a child might stiffen their body and smile for *yes* and turn away to reject or say *no*.

Signing

Signing is useful for helping children to understand language. It is helpful because the sign can be seen and held up to look at whereas speech 'disappears' as it is spoken. Signing can also be used as a means of expression with other people who know signs.

What is signing?

- A visual and gestural communication system used with or without speech.
- A collection of standardised and formal hand gestures, movements, and facial expressions.
- A collection of signs that vary from country to country and within cultural groups.

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Signing systems in Australia

AUSLAN (Australian Deaf Sign Language)

- The cultural language of the deaf community in Australia.
- A language with its own unique sentence structure and dialects. It is not simply a visual code of English.

Signed English

- The signed representation of spoken English, word for word.
- Not a sign language but a sign code.
- Created by using signs from AUSLAN and by formulating new signs.

What is Makaton?

- A language program.
- A set of 300 words/concepts organised into developmental stages.
- Not a sign system.
- Is always used with speech.
- Can be used with key signs from a signed system (e.g. AUSLAN).
- Can be used with symbols.

Key Word Signing

- Is used particularly for people with communication impairments rather than for people with hearing impairments.
- Is used as a tool for communication and learning development.
- Only Key Words (important words which convey meaning) are signed (for example, when conveying the message 'The dog ate the banana', the words: dog, ate and banana are signed).
- Uses the most appropriate sign from either AUSLAN or Australasian Signed English that represents the meaning. For example the sign for sea is used for the word beach.
- Only one sign is used to convey particular meanings or concepts, although different words may be used. For example, the sign for chair is used for the words chair, stool, seat, lounge, couch and bench.
- Speech is always used together with the signs.
- Spoken word order is retained, although it may be simplified to enhance meaning.
- Natural gesture, facial expression, movement, body language and intonation are used to enhance meaning (for example, big ball and little ball would be

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communicated using the same sign, but the positioning of the hands would indicate big and small).

Why is Key Word Signing used by Novita?

- As a visual model for speech.
- Because it is not as transient as the spoken word.
- Because one can shape or mould a person's hands to form the sign.



- Because it enables access to expressive language in the absence of speech.
- As a useful prompt, rather than telling the child the word to say.
- As a way of reducing the pressure on the child to use speech.

For whom is Key Word Signing used by Novita.?

Novita tends to use Key Word Signing for children:

- where short term, in-between use, will make it possible for communication skills to develop
- long term, as an augmentative or alternative way of communicating or as an add-on to speech
- who have a specific language impairment
- who have a specific speech impairment
- who have language or speech delay
- where there is:
 - o Intellectual impairment
 - o Autism
 - o Physical impairment
 - Sensory impairments associated with other communication impairments
 - Multiple impairments
 - o Learning impairments.

Principles for use of Key Word Signing in Novita

- Always speak as you sign and use facial expression.
- Only sign key words (words that convey meaning). For example, when signing Do you want to read a book or watch TV?, sign book and TV.
- Use directionality direct the sign towards the item to which you are referring, for example, when using the sign go point in the appropriate direction.
- Use placement position the signs in space, as though drawing a picture.

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- Use orientation orientate the sign to how the object or function appears, for example, sign in bag or in cupboard.
- Use movement to demonstrate concepts, for example big compared to little, long compared to short.
- Use gesture if you do not know a sign, but check the accuracy of your signs regularly.
- Don't be too concerned about which hand is used for signing, but be consistent.
- Create a reason for the person to sign, for example, place items slightly out of reach so that they have to ask for them.
- Practice using functional signs in everyday situations.
- Recognise that signing improves understanding of the spoken word and should not just be used by the child, but also by those talking to the child.
- Recognise that gesture is a natural part of communication.
- Recognise that signing is a visual code for language, promotes the use of simpler language, and is a teaching tool to promote independence.

Novita provides a number of Makaton (Key Word Signing) workshops each year. These are free for families of Novita clients. For information and to register, view the Makaton Workshops 2008 – Information and Application Form (PDF – 61Kb) on the Novita website.

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Object Symbols

What are Object Symbols?

Object symbols are objects that represent an activity, object or person. There are several different types of object symbols:

Miniature - a miniature version of the real object, for example, a small plastic banana to represent snack. However be aware that these may not provide enough sensory cues, such as size & texture.



Partial - a small part of a real object, for example, piece of a jigsaw to represent a puzzle.

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Associated - an object which could be associated with the real object or activity, for example, keys to represent driving a car. These are often the best object symbols because they are loaded with sensory stimuli.



Symbolic - an object not directly related to the real thing, requiring the child to think more about the object.



Examples of Object Symbols:

keys or seat belt	represents	car/driving
nappy/toilet paper	represents	toilet
spoon	represents	eating
cup	represents	drinking
sand paper	represents	sandpit
massage oil bottle	represents	massage
piece of rope	represents	swing
bathers (old pair)	represents	swimming
small book	represents	reading stories
McDonald's chip packet	represents	McDonald's
horse hair/leather	represents	horse riding
face washer/soap	represents	bathtime
toy ball	represents	play
piece of tube	represents	gastrostomy feed

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grass represents going outside

ring represents familiar person who wears rings

Why Use Object Symbols?

Object Symbols provide a tangible means of communication and a way for a person to express what they want if they are unable to speak for themselves. The same goal can be achieved with other communication aids, for example, photos and picture symbols. However, these are more difficult for the child because they are purely visual and do not provide any tactile input.

When first used, object symbols may help a person to understand activities better or help them to understand what is going to happen next. Later, they may be used as a way for the child to express what he or she wants.

Object symbols can be used on a <u>communication board</u>, in a <u>chat book</u> or, in a calender / schedule box (a box with compartments to display objects that represent the day's schedule in the order in which they occur).

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Choosing Object Symbols

- Make a list of all the activities in which the person engages requiring an object symbol. The activities should be those things which the person does regularly during their day or week rather than activities done only occasionally.
- It is important to choose the symbols especially for that person so that they
 will be relevant to him or her. They should be identified according to what the
 child experiences most or enjoys during the activities. For example, if the
 thing they like most about having a bath is holding a particular toy, then
 choose this as the symbol. If they use a straw or a cup for drinking the symbol
 may be a cup or a straw.
- Object symbols work best if they are loaded with sensory stimuli, for example, if they are interesting to feel, brightly coloured or noisy.

Introducing Object Symbols

- When introducing object symbols, choose a few of the most important symbols to introduce first. Do not introduce them all at once as this may be confusing.
- It is best to begin by representing an activity that occurs daily or often throughout the daysuch as at mealtime or bathtime. It is likely the child will learn this symbol more quickly, due to the frequent exposure to associations and greater meaning of the activity.
- Once you begin using object symbols they need to be consistent and used across the person's different environments, such as at home, at early intervention group, or during respite care.

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- If you create a set of symbols for each setting used by the child, they need to be exactly the same.
- Keep symbols in a bum bag to ensure they are always available and to improve the chance that they will be used consistently. Try hanging them at the back of the person's wheelchair by curtain rings as an alternative to the bum bag.
- Always use the same object symbol to promote the association between the symbol and the meaning and try to get the person to take notice of the symbol as much as possible.
- Match the symbol consistently with the activity it is representing. For example, every time the child has a meal, help them to feel, look at, smell and listen to the object symbol for mealtime before they have their meal. Make sure you name the activity and talk about it.

Chat Books

What are Chat Books?

Chat books are small books (often a photo album) that may contain photos, pictures, symbols, words and messages about a person.



They provide personal information about things such as:

- family members or the special people in an individual's life
- favourite toys/activities
- important recent events or happenings in that person's life.

What are chat books used for?

A chat book is a way for a person to share information about:

- their life
- their interests
- their recent experiences with people who talk with them.

It provides a common link between the person with a communication difficulty and the communication partner (for example, a friend, teacher, parent). This common link helps with:

- starting and keeping communication going
- helping to provide more opportunities for better conversations.

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Who uses a Chat Book?

People who have:

- difficulty starting conversation or communication
- difficulty telling about experiences and events
- limited ways of expressing themselves
- limited understanding of language
- limited opportunities to communicate.

How can I use the chat book?

When using the chat book try to:

- make interactions fun and casual
- use the book when the child shows that they are interested, for example, when the child gets out chat book or looks at the chat book
- encourage the individual to say, sign or point to symbols that are being talked about
- make the book available at all times so the child can start interactions by opening the book or looking at it
- ask questions that may be answered by using the book, for example, 'What did you do last night?'
- prompt the person to use the book by asking appropriate questions, for example, 'What did you do today? Let's get the book out and find out.'
- talk about the pictures, symbols, and messages in the book as though you are reading a story together
- keep the book up-to-date
- take out unwanted or odd messages, pictures or symbols this way the book will remain interesting to both the child and communication partners using it
- add to the chat book things, such as, movie ticket stubs, photos, postcards, to convey recent news.

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Communication boards and displays

- May comprise pictures, symbols and/or words.
- May be made in various ways, for example, a flat display, a booklet or a wallet.
- Require that 'Listeners' be able to recognise the symbol or read the words to understand the child's messages.

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- Require that 'Listeners' watch the user point out the message, that is, messages cannot be prepared in advance.
- Tend to discourage eye contact when communicating as the user and listeners are busy looking at the pictures.
- Are comparatively cheap.
- Can be used in a variety of situations not suited to electronic

devices e.g., in the pool, or if the device breaks down or has low batteries.



Speech Generating Devices (SGDs)

Advantages of speech generation

Speech Generating Devices have two main benefits over other communication systems:



- They provide a way for the person to communicate by way of a spoken voice, enabling the person to:
 - o get the attention of someone who is a distance away
 - o talk to someone over the telephone
 - o talk to someone who is in another room
 - talk to the teacher at the front of the class
 - talk with children and people who cannot read the symbols or words on a communication board
 - make funny noises
 - give a speech to a group of people
 - o sing songs.
- They also allow messages to be put together without the listener having to watch the message be pointed out. This has the advantage of allowing the user to put the message together independently and then to speak it out when they are ready. This is helpful when:
 - a teacher has a class of students and can't watch and wait for the student to put together every message

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- o a parent is busy at home, for example bathing another child, cooking, cleaning, and so on, but still wants to *chat* with their child
- o talking with strangers in the community, the child can get the message ready, with or without the help of someone else, and then go up and speak the message to the stranger by themselves, for example, to order a hamburger at a take-away shop.

Types of voice

Speech Generating devices have two main types of voice:

- Digitised (recorded) speech. Advantages:
 - Being able to suit the user's gender and age.
 - o Being able to use any language.
 - Being able to include noises that children often make during play, for example, the sounds *Brrrmmm* and *ee-or-ee-or* can be recorded for the child to use.

Disadvantages:

- The user not being able to put the messages they want into the device themselves.
- Not always having the same person available to record the messages as they are needed.
- Having to record every message needed, because commercial sets are generally not available.
- Not being able to spell words to create messages.
- Synthesised (electronic) speech an electronic voice similar to the ones used in automated telephone systems. Synthesised speech lets a user who can spell, and their carers, store their own messages.

Selecting messages on speech generating communication devices

If a person has only one movement they can control on command, they can use a switch.

Once a person can use a switch, they can *access* their communication device (activate messages).

They need the motivation and the language skills to then be able to use the device to communicate.

For more information on skills required for AAC and training, refer to the factsheet titled *AAC Training* in the Publications section of the Novita website.

Ways of selecting messages

Direct Selection

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This is usually achieved by pointing, either with:

- a finger, fist, toe
- a pointer on their hand or in their mouth
- eyes, (that is, by looking at the item they want)
- a headpointer (something attached to a headband or to the chin to point with)
- a light beam to highlight the chosen message.

Scanning (where items are presented to the person one after another) - scanning is useful for people who cannot point directly to things or for whom pointing is too hard or too tiring.

There are many different types of scanning to suit the child's needs. Items can be presented, one at a time, in:

- straight lines
- circular patterns
- groups, and then one at a time, once the group has been chosen.

The child can indicate which item they want by pressing a switch, by:

- pressing it each time they want the scanner to move to a different item, then
 pressing another switch when it gets to the one they want
- waiting while the scanner moves through each item automatically and then pressing the switch when it is on the one they want
- holding the switch down to make the scanner move through each item and then letting go of the switch when it is on the one they want.

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Types of switches

There are many different types of switches. Check the range available on the NovitaTech Website at www.novitatech.org.au. Switches can be made to work by:

- pressing
- squeezing
- pulling
- making a noise
- interupting a light beam
- sucking/blowing
- and other ways too!

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How messages are organised on speech generating devices

There are four main ways messages are grouped together:

- By topics such as animals, jokes, places. Often these groups are further divided into other groups, for example, animals is further divided into pets, farm animals, zoo animals, birds, and so on.
- By grammar, for example, verbs (doing words, such as run, hit, sleep), nouns (things, for example car, bed, dog), adjectives (describing words, such as pretty, smart);
- By situations or environments, such as messages for:
 - o ordering food in a restaurant
 - o celebrating a birthday
- By pragmatics (that is, how a message is communicated or how the language is used, for example, requesting action, or protesting).

Many people need to use more messages than can be displayed on one page. Speech Generating Devices use four main ways to organise messages so that many messages can be stored.

1. Levels

- Messages can be stored on multiple pages or levels
- These pages may be:
 - o paper overlays that are placed on top of the device
 - o electronic displays that can be changed on screen.

2. Encoding

Encoding refers to a way of storing messages using a type of code or sequence. A few different types of common encoding in use include:



- MinspeakTM
 - o Minspeak[™] uses just one overlay;
 - Users can get to lots of messages by choosing sequences of pictures;
 - o The pictures have multiple meanings, for example, selecting *zebra* then island then dog gives the message dingo;

The reason behind this sequence is that:

- zebra can represent the category of animals
- dog can represent the dingo.
- island can represent the category of Australian animals

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For more information about MinspeakTM, visit the Prentkeromich website at www.prentkeromich.com.

3. Letter encoding

Uses key letters to represent messages, for example:

- NM = Michael where N represents name
- NS = Sarah where N represents name
- PP = pub where P represents places.

4. Morse Code

- Dots and dashes are used to represent letters of the alphabet.
- This is useful for people who can spell and who can:
 - o only use one switch, where they activate it for a short or a long time
 - o use two switches and where one represents dots and the other dashes.

Message prediction

Some devices are able to predict possible words after the user has entered a certain number of letters. For example, when the user types the word *to* the device displays the following words:

- today
- together
- tomato
- tomorrow.

If the user wants one of these words, they select it from the list. If they don't, they enter the next letter and the device comes up with a new word list.

Spelling

Spelling is the most familiar way of communicating a message other than speech, it lets people communicate anything they want, and is a very effective method of communicating. However the spelling method can present problems:

 Many people with disabilities have difficulty learning how to spell. It is a slow way of putting together messages, especially if you cannot point to the letters directly.

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