

Total Communication

What is total communication?

This is a holistic view of communication, often using a range of modalities, or even thinking “outside the box” to create a system of communication that works for an individual. Other definitions of Total Communication include:

- Using any means and every means to communicate and/or receive a message
- Creating a system that best fits an individual to communicate, optimizing his skills and reducing his impairments
- A “catch-all” that ensures that an individual has access to some means of communication
- Facilitating and assisting each person by providing supports and opportunities to become involved and to actualize their potential

For most of us speech is our primary means of communication (although many of us are unaware of the extent that body language and facial expression play in conveying our message). Sometimes, we need to look beyond speech and think of communication in a broader sense, what we call Total Communication. Total communication focusses on every possible modality to express our message and help the information be understood and processed. Conversely, we also need to give the individual with a communication difficulty as many resources and opportunities to convey their message in a way that is understood.

The individual with the communication disorder

When we have to relate to, or communicate with, someone with a communication disorder we are often unaware of many simple tools that are available to us to improve the interaction. These tools do not have to be expensive or technical to be the most effective (although in some cases technology is the best option). We need to consider the individual, consider the nature of their communication disorder, and what tools they already have to communicate. If the individual we are communicating with is non-verbal, can they sign or gesture? If they cannot sign, can they eye point or access a switch? Is the communication partner visually or hearing impaired? Everyone communicates in some way, and virtually everyone can be given the capability to communicate their needs.



You, as the communicator

As well as facilitating the individual with a communication disorder, we really need to have an awareness of our own communication skills, what we are doing when we communicate, and how we can make our message more transparent. Remember, we are supposed to be the skilled communicators, so with that in mind, we need to be flexible and adaptable, pitch our message at the appropriate level for the listener and make our communication understandable. By using our bodies, our faces, and other tools, we can optimise the impact and meaning of our message. You will see ways in which you can do this as you read through this fact sheet.

The Environment

The communication environment can also have a major impact on the success of a message being conveyed and understood. Think about the light, visual distractions, background noise, your clothes, and whether you are both comfortable as you communicate. Consider the sensory sensitivities of the listener. These are simple observations and can be the difference between communication succeeding and failing.

Modalities that may be used in a Total Communication approach

This is not a complete list but covers many aspects of communication. Every individual is different and some may use several different ways to communicate. These tools do not all fit into their own categories, for instance Visual Strategies and Eye Scanning can also be described as lo-tech Assistive Communication.

- Touch cues
- Texture cues / Objects of reference
- Braille
- Environmental Cues
- Facial expression, gesture and body language
- Signing Systems
- Pictures/Visual Strategies
- Print and Symbol Systems
- AAC / Assistive Technology / Assistive Communication (hi & lo-tech)
- Eye Scanning
- Speech, Voice and Language



1. Touch cues

Most of us are able to use touch in appropriate ways to convey feelings and meaning. For the visually and hearing impaired we can convey information about what is going to happen through touch cues.

Touch cues are a way of giving individuals information about what is going to happen. These cues are probably more likely to be used with individuals with hearing and visual difficulties, but may also have some advantages with individuals with severe learning difficulties. Touch cues can help individuals understand activities, people and places. For instance, a hand on the shoulder may mean “sit down”, or alternatively the individual may be guided to touch a familiar person’s watch or ring to let them know who is present. A mother might touch her child on the forehead, and father on the ear, so the child knows who is there.



When all communicators use these cues consistently in daily routines this helps the individual understand and make sense of his surroundings and the people he meets. There are some things we also have to be aware of when considering touch cues. Giving touch cues is only okay if used appropriately and with care and respect for the individual. We must also be aware of those individuals that are touch sensitive, as some autistic individuals often are. Hearing and visually impaired individuals may also get a sudden fright if they are touched, so touch cues have to be given in a very gentle and systematic way. It is important that everyone uses the same cues so there is no confusion for the individual.

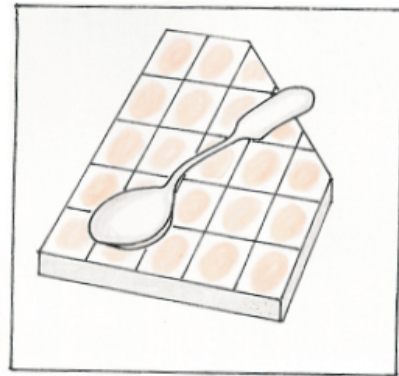


2. Texture cues / Objects of reference

Through the use of objects or tactile symbols, individuals can build up a wide range of communication options. These systems are generally used with individuals with visual and hearing difficulties and /or severe learning difficulties who may also be non-verbal. Some individuals may not have the motor skills to learn signing, so reaching for, or touching objects may be a better alternative.

In their simplest form, objects can be used to give individuals an idea of what is about to happen e.g. give someone a spoon and they know its time for lunch, or a towel, before going swimming. However, this form of communication can also be used in many more complex ways and the individual can communicate, make choices, learn language and organise. If we can develop the use of textures, objects and symbols, we can improve organisational skills, sequencing, develop language concepts, and communication.

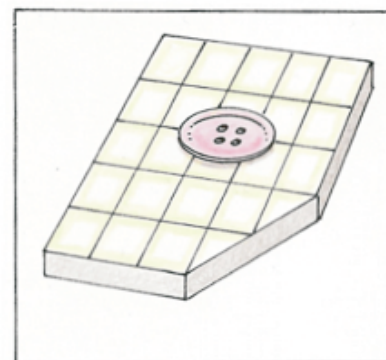
Symbols or objects can be placed within easy access of the individual, and using a series of textures and shapes, many words or concepts can be represented. For instance, a certain shape may denote “location words” and then on top of the shape you may have a spoon, which would identify the *cafeteria*. A texture could be made for *inside* and *outside* and matched with a towel - if the individual feels the *towel* and the *outside* location texture they know this means “beach”, if they feel the *inside* texture with a *towel*, they know this means “swimming pool”. These symbols can be placed on an activity board or a conversation board.



A spoon on this texture / shape could denote kitchen as oppose to cafeteria.

These objects can be handed over by the communicating individual to initiate, request, or make choices. Alternatively, they can be given to the individual to communicate, explain or teach.

Textures can be put on doors to rooms or cupboard doors to facilitate visually impaired individuals to find their way around. Timetables can be made for visually impaired students or students with learning difficulties by arranging a series of objects in order so that a student can follow their daily timetable through the medium of touch.

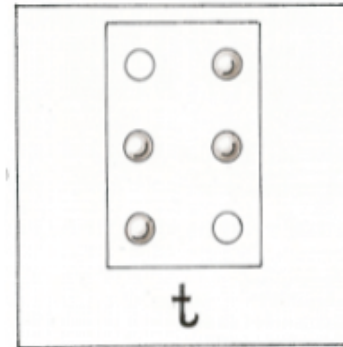


A button with this texture / shape could denote shirt as oppose to coat.



3. Braille

This system was devised by Louis Braille in 1821 and is a method widely used by blind people to read and write. Letters and numbers are represented in a cell containing 2 columns of 3 dots each. A dot may be raised at any of the 6 positions to form 64 combinations. Each cell represents a letter or number. A blind individual runs his fingers over the raised dots and translates the dots into letters and then words.



Although this system may seem complicated, it is no different from sighted people learning to read regular letters. Efficient braille readers can use this system to read quickly. Labelling machines have been developed so that everyday items can contain a braille label and facilitate the visually impaired individual to perform everyday tasks. Tasks such as putting the washing machine at the right setting, or distinguishing between the jar of jam and pickle can be made simple with the use of braille labelling.

4. Environmental cues

This is a general description for many cues that are around us. They can include pictures, logos, colours, noise and texture. They may not immediately stand out as modalities of communication but they guide all of us day to day e.g. the doorbell, the colour red for danger, an picture of a deer on a road sign etc.

What is important, is that if a person has a communication or sensory difficulty then we need to find other ways in which to alert them with these environmental cues. A good example of an environmental cue that is widely used is the alarm on traffic lights to alert visually impaired people it is safe to cross.

Within a special needs classroom or Day Centre for adults with learning difficulties an environment needs to be created that is predictable and understandable and these cues have to be adapted using different forms of texture, sound, shape, picture, and colour. Choice boards and visual schedules can be used to give the classroom or centre some familiarity and direction.



Visuals or textures can be placed on doors to give individuals a clue of what lies behind. Alarms can alert when it is time for a break, or a timeout is over. Signs and colours can be used for danger. Soft lighting and relaxing music can be used to help with behavioural difficulties, or to promote relaxation.



5. Facial expression, gesture and body language

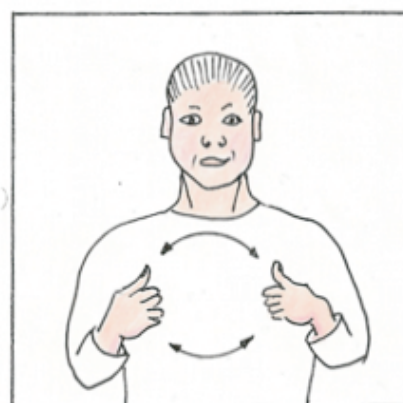
These are some of the more obvious examples of non-verbal communication, but are important because they carry so much meaning and can be used very successfully by people with communication difficulties. Facial expression not only sends a message on its own, it can greatly enhance or change a verbal message. It is important for sending, and receiving messages. For some non-verbal individuals who are unable to express themselves using sign or gesture, facial expression can often be the most obvious form of communication. A smile can mean “yes”, or “I am happy with that” and a grimace can mean “no”, or “go away”.



“Go away”

Body language and gesture has similar significance. This can be very subtle and often the listener or observer may be unaware that particular movements mean particular things. It is important to take some time out to observe and assess individuals who are non-verbal and usually seen as uncommunicative. Subtle movements often carry messages and it is important to notice these, and even create a gesture dictionary for that individual so that others are aware of their communicative intent.

People who have communication difficulties, but good gesture skills can enhance their message and help others understand their needs. Like facial expression, gesture can express a variety of feelings and thoughts. Conversely, if the communication partner uses gesture, this may help the individual with communication difficulties understand a message when they have difficulty following spoken language. One just has to think about how much gesture we use when we communicate in another country and do not know the language.



Gesture for “car”



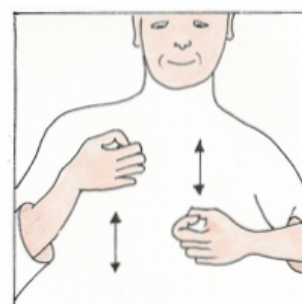
6. Signing Systems

Signing systems are different from gesture in that they have set hand or body movements to represent a word, whereas gesture is a little more arbitrary. There are a number of different signing systems which vary greatly in complexity. Probably the most well known is sign language for the deaf. This is a whole language encompassing a wide vocabulary and grammatical structure and also involves facial expression. Individual countries have their own signs and often areas within a single country will have some regional differences (like having a local dialect or accent).

There are also simpler signing systems such as *Makaton* which was designed mainly for individuals with special needs, and includes a few hundred individual signs. Makaton signs are simple to produce and are easier to use than speech for some individuals.



BSL "what"



BSL "milk"

Signed English uses signs from *British Sign Language (BSL)* with finger spelling and specifically generated signs and grammatical markers. In this way it mirrors English spoken language exactly.

Paget-Gorman Signed Speech is a grammatical signed system which follows normal patterns of English and is used by people with speech and language disorders and learning difficulties, as opposed to those with hearing impairment.

Signalong is based on British Sign Language and is mainly used to assist those with language difficulties communicate. The vocabulary used covers a wide range of topics and allows for use in certain language programs.

Cued Speech is a system used in the hearing impaired community. It involves using a number of handshapes close to the mouth. The handshapes represent consonants and are a supplement to lip-reading. It was initially developed to help hearing impaired children with poor reading comprehension, but is now used for individuals with a range of speech, language and communication difficulties.



7. Pictures/Visual Strategies

Visuals and pictures can work for many individuals with communication difficulties. Visual strategies can be used in many ways to enhance understanding and expression. They are particularly useful for non-verbal individuals, individuals with learning difficulties and/or those with autism. Some individuals are “visual learners” and respond better to visual input than auditory input. Visuals can be used in isolation to represent single words or actions and make choices, they can be used in stories or schedules to help with routine, and they can be used as an additional cue to the spoken word to help support understanding.

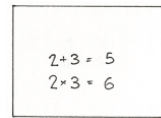
The Picture Exchange Communication System (PECS) is a good example of using visuals to aid communication. The PECS system was initially developed to facilitate non-verbal autistic children to initiate communication, and request. The system has developed to include visual schedules and host of other visual strategies to facilitate communication, behaviour and understanding. PECS can also be used with individuals who have other communication difficulties such as dysarthria or severe dyspraxia.

For non-verbal individuals wanting a system that is understood by everyone across environments, visuals are one of the best systems to develop. A book of visuals is portable, easily accessible and robust. A series of visuals can be used to create a grammatically correct sentence.

For more information on using visuals to facilitate communication go to www.icommunicatetherapy.com



Circle time



Numeracy



Free Choice



Writing



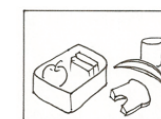
Morning Tea



Art



Physical Education



Lunch

Above, a simple example of a visual timetable



Using visuals to communicate



8. Print and Symbol Systems

A printed word or recognisable symbol system can be used when other forms of communication fail. Some individuals who suffer a brain injury or stroke may experience speech impairments but still have some ability to write their thoughts or requests. Others may even draw a picture to get their message across. Using alphabet charts is another way to use print to communicate. An individual with a speech impairment can spell out words, or point to the first letter of the word on an alphabet chart as he says it, helping cue in the listener to the word. Evidence shows that when individuals with severe dysarthria used an alphabet chart to highlight the first letter of each word they spoke, this provided a strong cue for the listener and their intelligibility was greatly enhanced.

See www.icommunicatetherapy.com for more information on dysarthria and strategies to improve communication.

9. AAC / Assistive Technology / Assistive Communication (hi & lo-tech)

Assistive technology is a generic term that includes assistive, adaptive, and rehabilitative devices with a focus on facilitating communication. Modern electronic machines (hi-tech) have become the new way for many individuals to communicate. However, assistive devices do not have to be expensive or electronic, they can be lo-tech (picture cards, E-tran frame), and often these simpler lo-tech options are the better, more functional choice, depending on the individual and their disability. Whatever assistive device is used, the end goal is to improve communication and independence.



Advances in computer technology mean new hi-tech devices are becoming smaller and cleverer. Through the use of scanning and switching many individuals are now getting access to tools that allow them to communicate and adapt their environment.

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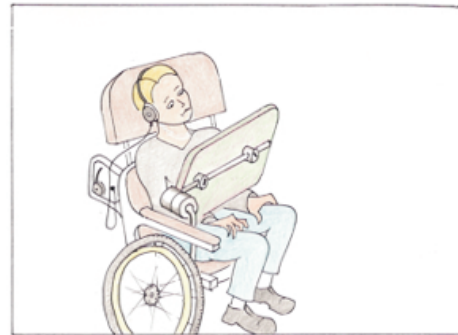


Hi-tech communication

Hi-tech generally refers to electronic devices. These tend to be a more expensive option, and can be very sophisticated machines which include voice output. These range from, devices that require you to type your message, simple devices with a few pre-loaded spoken messages, to devices that contain computer software and offer thousands of words and phrases, visual displays, internet access and Mp3 players etc. Many machines now include environmental controls, so as well as being able to communicate, an individual can turn on the lights or change the volume on TV. These machines can be accessed directly and many allow for switch access. For individuals with severe physical difficulties these devices provide more independence.

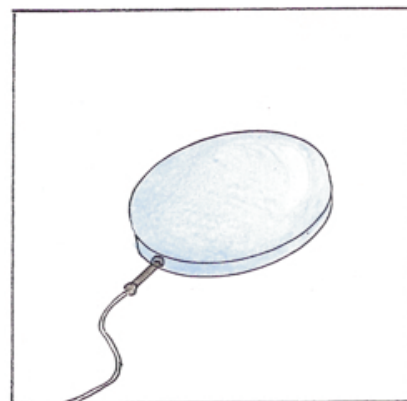
Access and switching

Machines can now be set-up on the users wheelchair and accessed via switches or eye scanning. There are a number of switch and access options for users with a range of needs. See www.icommunicatetherapy.com for more information about assistive technology, access methods, and switching.



Having a way to access a communication device has always been the big issue for many individuals with physical difficulties. However, there are now many ways in which individuals can have access to some form of communication.

Switches - there are many different designs of switches to allow different means of access. Switches can be pressed, knocked, and blown to activate, and some can now be activated by small movements such as eye blink. Switches themselves are not just used for access, but can be used as communication devices. A big-mack switch allows you to record a message and play it back every time you press the switch. This is especially good for teaching “cause and effect”.



A “buddy button” switch



Mice - Some children with physical difficulties have difficulty using a mouse. However, there are now adapted mice, rollerball mice and joystick mice which give users access to a computer, communication machines and software. There also mice that are controlled with the lips and the mouse clicks are entered by blowing or sucking on a small tube. This allows individuals with physical limitations to access computers.

Eye-scanning - The latest technology for facilitating access to technology is eye scanning. This works by having a small camera at the top of a VDU screen tracking the movement of your eye. Your eye then acts as the cursor, so where your eye focuses on the screen, the cursor follows. Using this system individuals with physical limitations are able to access a computer, type messages and activate speech output software. This technology is not ideal for everyone, and users need good head control and attention skills. However, for some individuals with severe physical limitations, it works extremely well and allows them to communicate, write and control their environment.

Lo-tech communication options

Lo-tech options such as picture communication books and alphabet charts can often work as well, if not better, than hi-tech devices, for many clients with a communication delay. It may be much quicker for a person to point to a picture in a book than scan through several pages on a computer screen to say the same thing. Although often overlooked, these options can actually be more effective than a hi-tech option for some users.

Visuals - Visuals are often used in various ways to facilitate communication. Visuals can be used in books or communication boards where they are eye-scanned or pointed at. Visual displays such as schedule boards and visual calendars, can be used to show individuals what is going to be happening.

Communication books - As above, pictures are scanned or pointed at to communicate. Some books contain detachable laminated pictures that can be removed and given to the communication partner.





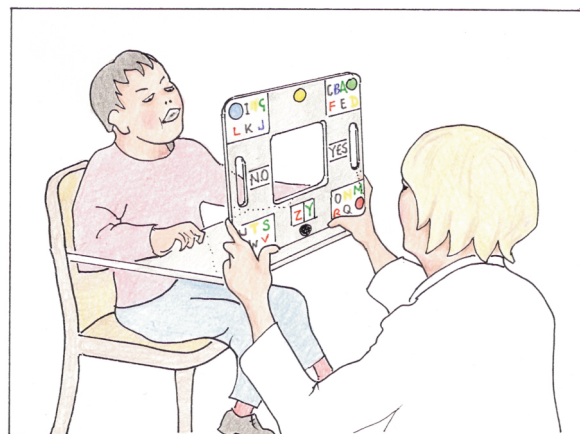
Assessment and trialling - “finding the best fit”

Assistive technology can be a huge facilitator to individuals with learning difficulties, special needs or communication problems, helping them learn and communicate. The important thing to note here is that when looking at assistive communication devices, it is crucial that you do a thorough trial of several different options to really find the “best fit”. The higher tech, most expensive option is not always the best. You have to take account of many variables including portability, functionality and speed of use. Joy Zabala developed the SETT framework which facilitates the assessment and trial process and helps find the best option for an individual, taking into account his needs, his skills and his environment. Check our links section to find out more about the SETT framework.

10. Eye gaze and partner assisted scanning

Some of the newest technology available to access a computers or communication machine is eye-gaze. The user's eye is calibrated with the screen and then his eye movement corresponds with the movement of the cursor. The user moves the cursor around the screen by the movement of his eye and when he holds the cursor still on an item, this is equivalent to a mouse click. So if the user has keyboard layout on the screen he just has to look at the letters on the keyboard to type them. This is really cutting edge technology and for some it could be a much faster way to access technology than using regular scanning. There are still a few difficulties with these systems, but they are certainly an exciting new development in assistive technology. For someone to successfully use eye-scanning to access a computer they must have good head control and concentration skills.

A lo-tech, but very effective form of eye scanning, is the E-TRAN frame. The frames may vary in design but many are made of a transparent material (like a window) with a communication partner sitting on the opposite side. On the window are a number of symbols and letters etc. The communicator looks in the direction of the symbols and the communication partner follows the message by following the communicators eye gaze and asking questions.



An E-tran frame

For more information on hi and lo-tech devices see www.icommunicatetherapy.com



11. Speech, Voice and Language

Many people with communication impairment are still able to use their voice and speech. However, they may have other difficulties with communication that reduce their ability to get the message across (difficulties with social skills, understanding, intonation, eye contact, topic maintenance, proximity, turn-taking etc). When some aspects of communication are difficult it is important to focus on other areas to enhance the spoken message, and this may include using other forms of communication that have already been mentioned.

Good communicators must be aware of their rate, volume and intonation as well as using gesture and facial expression to help the listener understand the message. As skilled communicators we must also be aware of the complexity of the language we are using. For instance, if an individual's level of understanding is at the 1-word level there is no point asking them to go and fetch three different objects, they will either not understand, or only be able to pick out the name of one of the objects. Remember to pitch your language at a level that the listener will understand and give them plenty of time to process the information.

For those individuals that have very delayed receptive language skills, using the Minimal Speech approach can have a positive effects for communication and behaviour. The Minimal Speech approach focusses on trying to reduce the number of sentences and the length of sentences when communicating. Use 1 or 2 key words rather than sentences (this is harder than it sounds, because it is not the way we naturally communicate). There is often a belief that some individuals have a good understanding, because they appear to follow instructions. However, on many occasions, individuals follow lots of other cues (gesture, intonation, what other people are doing etc) and do not understand the spoken message. Some individuals are able to produce spoken language and not understand the words they are using (this is typical of some individuals on the autistic spectrum), but listeners assume they can understand language because they speak it. Inappropriate and/or challenging behaviour may occur when individuals do not understand what is happening, so endeavour to keep language simple if you are not aware of the listeners level of understanding.

Total communication encompasses a host of different ways to communicate, many of which we may use everyday without even thinking about it. The important thing to note here is that by using a combination different communication modalities you can greatly increase the effectiveness of the message, and the listener will have more cues to help them understand the message.

For information on the key guidelines in aiding communication in Total Communication environment, and further information and activities on all aspects of communication see www.icommunicatetherapy.com



To learn more about Assistive Communication, Total Communication, and all aspects of communication, you can read about and purchase books on our website www.icommunicatetherapy.com. Click this link to see our online Resource Centre [Book Shop](#)

Augmentative & Alternative Communication: Supporting Children & Adults With Complex Communication Needs by David R. Beukelman and Pat Mirenda

AAC from A to Z (Augmentative and Alternative Communications Perspectives) by Lyle L. Lloyd, Helen H. Arvidson, and Donald Fuller

Assistive Technology: Principles and Applications for Communication Disorders and Special Education by Raymond W. Quist, Lyle L. Lloyd, and Helen H. Arvidson

Handbook Of Augmentative And Alternative Communication by Sharon L. Glennen and Denise C. DeCoste

Augmentative and Alternative Communication for Adults with Acquired Neurologic Disorders by David R. Beukelman, Kathryn M. Yorkston, and Joe, Ph.D. Reichle

Building Communicative Competence With Individuals Who Use Augmentative and Alternative Communication by Janice C., Ph.D. Light and Cathy Binger

Communication and Adults with Learning Disabilities by Anna van der Gaag and Klara Dormandy

Adults with Learning Difficulties by Alex Kelly

Finding You, Finding Me: Using Intensive Interaction to Get in Touch With People With Severe Learning Disabilities Combined With Autistic Spectrum Disorder by Phoebe Caldwell

Access to Communication: Developing the Basics of Communication with People with Severe Learning Difficulties Through Intensive Interaction by Nind & Hewett

The Child With Special Needs: Encouraging Intellectual and Emotional Growth by Stanley I. Greenspan, Serena Wieder, and Robin Simons

Socially Speaking: Pragmatic Social Skills Programme for Pupils with Mild to Moderate Learning Disabilities by Alison Schroeder and Jacqueline M. Jomain