Dimensions
there for the people we support

Communication systems

for people with learning disabilities and autism

Table of contents

Introduction

Some of the people we support need help communicating with others.

Communication is a two-way process.

This is why the systems below are designed to help the people we support:
-   communicate their wants and needs to others (expressive language)
-   understand other people's communication (receptive language).

You may hear people talking about Augmentative and Alternative Communication systems (AAC).

Augmentative Communication systems are those that are used alongside speech to help others understand and communicate more effectively. Types of Augmentative Communication systems include Makaton, Picture Exchange Communication Systems (PECS) and Objects of Reference.

Alternative Communication systems are those that are used instead of spoken speech (but that may sometimes be used with speech). Types of Alternative Communication systems include Voice Output Communication Aids (VOCA) and British Sign Language (BSL). However VOCAs can also be used augmentatively.

This information sheet is designed to explain what the various types of communication systems are and when best to use them.

Behaviour Support Team
Dimensions

Makaton

About the system

Makaton was developed in the late 1970s and uses signs derived from British Sign Language.

When using Makaton always:
- speak and do this naturally
- focus on key word signing i.e. signing only the important words
- sign with people that rely on Makaton as their primary form of communication
- be consistent with what hand you use for each sign
- use the correct sign, do not make them up as this is not useable within the community or with anyone that doesn't know the individual well
- sign all of the time even for words the person you support does not use as they may well learn new words by watching you - just like how we learn new spoken vocabulary
- couple the signs with Makaton symbols throughout the house
- regularly train staff
- develop the signs used by the people we support
- correct other staff when they make errors with their signing
- make sure all staff understand the signs used by the people we support as often these may be different from how we sign, just like spoken words are often different (e.g. not as clear)
- use appropriate body language and facial expressions to make the meaning of the signs clearer.

Good for people who

- have fairly good motor skills
- have fairly good motor control
- are sighted (although Makaton can be used with people with visual impairments)
- are not profoundly deaf
- have a good receptive vocabulary (ability to understand).

Disadvantages

- Makaton is not widely used within the community.

Objects of Reference

About the system

Objects of reference (OOR) are objects which have special meanings assigned to them (Ockelford, 1994).

OOR were initially used with blind people and those with dual sensory impairment.

OOR are now also used with people with profound and multiple learning disabilities.

An object of reference is accessible to people who are blind, partially sighted and have a complex learning need by:
- providing information through touch
- being easier to interpret than pictures for those with visual perceptual problems
- being a concrete object linked to the symbolic words in language
- remaining in place, giving time to process.

OOR is a system where actual objects are used to represent things e.g.
- cup = having a cup of tea
- trainers = going for a walk
- towel = bath
- swim suit / trunks = going to pool
- knife and fork = dinner
- book = college.

These are only examples and the objects listed here do not necessarily have to refer to the activities mentioned.

Using objects of reference to exchange is taught in four stages based on PECS (Bondy and Frost, 2002):
1. how to communicate
to learn to make a request by exchanging an object with a person
2. objects have meaning
to learn a small number of objects have different meanings
3. discrimination
to make an intentional choice between two or more objects
4. distance
to use a range of objects, kept in a specific container, to make a spontaneous request.

Objects of Reference continued...

OOR can be used to:
- **support receptive language**
  an object of reference is presented just before the associated activity to give extra tactile and/or visual information on what is about to happen
- **support memory**
  having a permanent tactile reference can act as a reminder
- **communicate expressively**
  objects of reference that are well known to the individual can be used to make requests/ choices.

When using OOR always:
- personalise the objects used and their meanings
- try not to choose very large OOR as this makes it more difficult when not in the home or when travelling
- speak naturally but after saying the main sentence e.g. "Would you like to go [give the item] swimming?" repeat the main word "swimming", and then the sentence again "Would you like to go swimming?" This may not be suitable for all people that rely on OOR
- keep the objects together in the same place
- label the objects with what they are used to communicate
- try to use as both a way of understanding (us talking) and expression (person we support talking) e.g. when Zoran wants to go swimming he may go to the OORs, retrieve some bathers and hand them to you.

Good for people who
- may find other systems difficult to understand
- are blind but struggle with systems that rely on sound, like spoken communication (and Makaton as you must always speak when using Makaton)
- may find transitions difficult
- may have dual sensory impairment
- may prefer the kinaesthetic method of learning and acquiring language.

Disadvantages
- to carry all of the required items with you in the community or   places other than the home is difficult and cumbersome, therefore this system is not very transportable
- not a formal language.

For more information download
http://goo.gl/tQ1gbh

Picture Exchange Communication System

About the system

PECS is a specific form of communication using symbols. PECS does not require the use of a certain type of symbol, however simple black and white line drawings (e.g. Makaton symbols) are best as they are easier to understand and better for generalisation (transferring between people, places and objects).

Various types of symbols can be used:
- simple black and white
- colour
- 3-dimensional (actual items underneath laminate).

When using PECS always:
- make sure that the people we support can discriminate between different symbols
- use symbols to communicate to the people we support
- use additional symbols that the person we support does not use when communicating so that they may learn new words by observation (watching us)
- start the teaching process by focusing on motivating things
- make sure that you do not rush onto sentence strips and commenting until basic requesting is used consistently and well by the people we support
- train staff and correct poor PECS usage
- use appropriate symbols based on individual needs, preferences and abilities
- keep the symbols in a book and separated by theme e.g. food and drink, activities, the home, places, people etc.
- have a duplicate book for staff. Do not use the book that the person we support uses, this is their voice, not yours.

Good for people who
- find Makaton difficult
- do not have the motor skills required for Makaton
- prefer tactile things and pictures and drawings.

Disadvantages
- not a formal language
- people regularly forget to use PECS to communicate to the people they support, that is, the symbols are often used primarily for expressive communication.

For more information visit
http://goo.gl/vB9a8p

British Sign Language

About the system

BSL is a language in its own right, just like English or Polish or French.

BSL does not use the same word order as spoken English e.g. we say "I am going to work" whereas people who use BSL sign "Work I go".

People who use BSL tend not to speak, although many do.

BSL is a complex language just like any other.

When using BSL always:
- learn the proper language
- use it properly and don't try and blag it - this often frustrates and confuses BSL users
- keep updated with training
- correct poor signing.

Good for people who
- are profoundly deaf
- have significant hearing impairments.

Disadvantages
- primarily for the use of deaf individuals
- difficult to access advanced training
- separate language to English
- most often used without speech
- not widely used within the general community.

For more information visit http://goo.gl/ulfaZs

Voice Output Communication Aids

About the system

Voice Output Communication Aids (VOCAs) are devices used by individuals who are either unable to speak or whose speech is unintelligible. VOCAs or Speech Generating Devices (SGDs) are devices which enable the user to speak.

The simplest VOCAs store a single pre-recorded message, which is produced in the form of digitised speech when the person using the device presses a button, switch or key.

The most elaborate VOCAs include software that allows users to create and combine words to produce novel utterances in the form of computerised synthetic speech. There is a wide range of VOCAs commercially available.

The most important thing is that they reflect as closely as possible the user's own abilities and that they fulfil the needs of the user. Dedicated communication devices are designed with communication as their primary goal.

They are available with both text-based and symbol-based programmes, and many are wheelchair mountable.

Typically they will store frequently used words or phrases in memory that can be accessed by a two or three key combination e.g. UB = "I need to use the bathroom, please." They typically include a 'Word Prediction Facility' as standard. This is a very useful tool as it significantly reduces the number of keystrokes a user has to make.

Symbol based communication devices are commonly used by individuals whose literacy skills prevent them from accessing a text-based system.

Good for people who

- are unable to speak
- can speak but their speech is very difficult/impossible to understand.

Disadvantages

- some hardware is very expensive
- requires some level of technical ability.

For more information visit
http://goo.gl/NDhZ76

Communication Applications

About the system

The iPad has revolutionised the assistive communication world.

At an affordable price, the easy to use iPad has become the most recommended device when an assistive communication device is needed.

In the iPad app store there are numerous applications available for individuals with learning disabilities.

Good for people who

- prefer to use Apple® or other electronic based Android devices and software.

Here are seven assistive communication apps for the iPad (iPhone, iPod Touch) that you may find useful.

Proloquo2go

Proloquo2Go is the most well-known of all the assistive communications apps on the iPad. It is also one of the priciest.

Proloquo2Go is a full-featured augmentative and alternative communication solution for people who have difficulty speaking.

Easy to set up and use it provides natural sounding text-to-speech voices, high resolution up-to-date symbols, powerful automatic conjugations, a default vocabulary of over 7,000 items and is fully expandable.

The app is very easy for individuals with learning disabilities to navigate through the menus.

It has a beautiful graphic display and great voice quality.

Proloquo2Go is definitely a better bet on an iPad than an iPhone.

iCommunicate for iPad

iCommunicate for iPad allows you to create pictures, flashcards, storyboards, routines, visual schedules and record custom audio in any language.

Aside from being an AAC device, iCommunicate also includes task completion and audio visual prompting.

iCommunicate comes preloaded with 10,000 symbolstix pictures.

You also have the ability to insert Google images and the story boards are printable.

Disadvantages:
- this app is for the iPad only
- the feature set is definitely not as robust as Proloque2Go, but you get what you pay for.

iComm

Looking to get your feet wet with an AAC app without spending a lot of money? iComm may be for you. iComm lets you load picture and audio and record your own voices.

Ideal for children and adults with autism, cerebral palsy, apraxia and Down's syndrome.

Disadvantages:
- although this app is free, a lot of the features are only available with a small upgrade fee so be prepared to pay more.
- iComm only works with the iPad and iPhone and not the iPod Touch.

My Talk Tools Mobile

My Talk Tools Mobile for the iPhone, iPod Touch and iPad enables people with communication difficulties to express their needs and desires to those around them.

My Talk Tools Mobile represents a major breakthrough in augmentative, alternative communications (AAC) by making it easy to customise how you communicate through a variety of images, pictures, symbols and audio files including human voice.

In five minutes, you can create your very own content and communicate in a way that YOU choose.

My Talk offers a robust feature set for the price. The app can also be shown on an external display making it great for school and college.

Communication Applications continued...

Look2Learn – AAC

Look2Learn (L2L), a revolutionary AAC software application for the iPod Touch, iPhone, and iPad, allows individuals to work at their communicative level using photographs to express wants and needs.

The easy to use system integrates preloaded vocal output so that individuals can use their "voice".

In addition, users are able to record their own personalised audio and pair it with photos.

This is a good app for beginners not willing to shell out more money.

Disadvantage:
-   the app can only hold 140 pictures.

Voice4U

Voice4U is a revolutionary AAC (augmentative and alternative communication) application that helps individuals to express their feelings, thoughts, actions and things they need.
It is a perfect solution for learning and communication for individuals with autism and people around them.

With it, you will never have to guess at an individual's wants and needs and will break down the barriers of communication for individuals with learning disabilities.

Disadvantages:
-   the illustrations are not the best
-   you are limited to 9 categories.

iConverse

iConverse is an educational tool designed for young children, individuals with autism, and individuals with other communicative disabilities, and also toddler-aged children who have yet to master language.

iConverse is an Augmentative Alternative Communication (AAC) application for the iPhone and iPod Touch that replaces bulky and expensive communication devices used in the past.

Communication Applications continued...

Disadvantages:
-   iConverse comes with only 6 preloaded image buttons so you will need to do some button making work before you can use it
-   it also does not come with a scheduler to help with transitions.

Grid Player

Grid Player comes with four complete grid sets – Symbol Talker A, Symbol Talker B, Talking Photos and Text Talker Phrasebook.

The Symbol Talker grid sets are complete dynamic screen vocabularies and are available for two different levels of user.

The developers have created Grid Player optimised versions of their most popular grid sets, which you can download from Online Grids.

Grid Player includes Snaps Photo Library, Widgit and SymbolStix symbols. It is not currently possible to use paid-for symbol libraries such as PCS, Bliss and Makaton.

Grid Player comes with high quality Acapela speech, with both male and female voices.

It is available to download from Apple app stores in the following languages:
-   English (UK, Canada, US or Australia)
-   Arabic
-   Czech
-   Dutch (Netherlands or Belgium)
-   French
-   German
-   Greek
-   Italian
-   Norwegian
-   Polish
-   Portuguese (Portugal or Brazil)
-   Spanish
-   Swedish

For more information please visit:
http://sensorysoftware.com/grid-software-for-aac/grid-player/

Communication Applications continued...

The Special Needs iPad & App Series

1. The special needs iPad & app series: welcome.
2. 7 Assistive Communication (AAC) apps for the iPad, iPhone and iPod Touch.
3. 7 scheduling and behavioural apps to help with transitions and more.
4. 11 social skills & life skills apps in iPad app store.
5. 10 websites to find special needs apps for the iPad & iPhone.
6. 7 special needs apps in the Google Android market.
7. On a tight budget? 7 ways to get an iPad for your child with special needs.
8. 6 steps to get the iPad into your child's special education classroom.
9. 4 special needs iPad/iPhone apps for the future.

Please be aware that there are often Android versions of these applications and, if not identical, are very similar.

Information sourced from:

- http://www.aacsig.org.uk/sites/default/files/presentations/Poster % 20OoR % 20 ISACC2014.pdf
- Ockelford A, 1994. Objects of Reference. London: RNIB.
- Frost L and Bondy A, 2002. The picture exchange communication system, Pyramid Educational Products Inc.
- http://www.researchautism.net/autism-interventions/types/alternative-and-augmentative-communication/voice-output-communication-aids-and-autism
- http://www.friendshipcircle.org/blog/2011/02/07/7-assistive-communication-apps-in-the-ipad-app-store/
- http://sensorysoftware.com/grid-software-for-aac/grid-player/