Providing a Total Communication approach

Ian Bell
Specialist Independent Speech and Language Therapist

Article 2 in the series Facilitating communication in people who have visual impairment and additional needs. All the articles are available to download from my website at

http://ianpbell.wordpress.com/communication-in-vi-children/

A list of all the articles in the series is provided on the website.

This article is based closely on a document used to support the Communication Policy adopted at RNIB Pears Centre for Specialist Learning. As Lead Speech and Language Therapist there, I took the lead in writing the original document in 2010.

For further information about RNIB Pears Centre for Specialist Learning, go to www.rnib.org.uk/pearscentre

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Ian Bell
January 2013
This is a revised version of the article which was posted in October 2011
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Total Communication – a definition

According to Wikipedia, the term “Total Communication” was first used by Roy Holcomb in California. Total Communication was adopted by the Maryland School for the Deaf in 1967 as the official name for their educational philosophy. It was developed there by David Denton.

Total Communication is a communication philosophy. It is not a communication method, nor a teaching method. It is an approach to create successful and equal communication between people with different communication skills. Using Total Communication amounts to the use of all appropriate means of communication in order to understand another person and to be understood by that person (Helen Sanderson Associates, not dated). This definition draws on that by Hansen (1980).

The tasks for practitioners

For practitioners supporting people who have visual impairment and additional needs, using Total Communication involves

- supporting each person to use the means of communication that works most effectively for him / her ¹ and responding appropriately to the person ²
- modifying the way they speak ³ and augmenting their spoken language.

It is therefore important that practitioners have a good understanding of the nature of communication. ⁴

People who have visual impairment and additional needs communicate using a very wide range of behaviours. Almost anything that such a person does can communicate. Practitioners should develop excellent observation skills, to become aware at all times of what each person is

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¹ See “Alternative and Augmentative Communication (AAC)”, p.6.
² See article 14. A list of all articles in the series is provided on the website: http://ianpbell.wordpress.com/communication-in-vi-children/
³ See article 17.
⁴ See article 1.
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doing. They should constantly ask themselves: what does it mean when the person does that?

Practitioners also need to understand that they constantly communicate to the people they are supporting. Competent communicators communicate in a wide variety of ways.\(^5\) Some of these means of communication are intentional; many are not. Everything practitioners do, and the way they do it, communicates their attitudes to the people they are supporting: it shows whether they

- like those people
- care about them
- respect them
- value them as individuals
- want to support them, if appropriate, to acquire new skills\(^6\)
- want to support them to have control over their lives\(^7\)
- want them to enjoy life
- want them to be active participants and communicators.\(^8\)

Practitioners should bear in mind that their actions – and, indeed, their lack of actions – may speak louder than their words. This can be illustrated by referring to Jo, who has no functional vision, uses a wheelchair and has a little understanding of spoken language in familiar situations. Practitioners generally greet Jo effectively when they first establish contact with him, but often fail to inform him when they are about to push his wheelchair. Thus, when they greet Jo, practitioners usually communicate well. But when they push his wheelchair without informing him in advance, they fail to communicate effectively. Moreover, by failing to inform Jo, they are communicating their attitude towards him. This failure to tell Jo what is about to happen, in effect, communicates a lack of understanding. When repeated many times in the course of each day in many other situations, failing to tell Jo what is about to happen

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\(^5\) See article 1.
\(^6\) See article 15.
\(^7\) See article 8.
\(^8\) See article 9.
actually communicates the messages *I don’t really care about you or respect you*. In fact, *I don’t even treat you as a real person*. Effective and responsive communicators treat each person as an individual, with care, respect and dignity.

**Alternative and Augmentative Communication (AAC)**

Using the Total Communication approach necessarily involves using AAC. AAC stands for Alternative and Augmentative Communication (confusingly, sometimes Augmentative and Alternative Communication).

Someone who uses Alternative Communication uses an alternative means of communication, that is, an alternative to spoken language. Indeed, the person is likely to use several alternatives.

Someone who uses Augmentative Communication continues to speak and uses another means of communication to augment (supplement) his or her spoken language. Indeed, the person is likely to augment his or her spoken language using several additional means of communication.

Practitioners supporting a person who has visual impairments and additional needs should communicate using the means that maximise the person’s understanding. In other words, they should augment their spoken language to support the person’s receptive communication. Several strategies are available, including

- providing very clear routines
- providing a good auditory environment ⁹
- slowing down everything in order to provide the person with additional time to process events and information and to plan and carry out a response
- being very sensitive, by imagining how the person understands the world
- being re-assuring
- adjusting spoken language ¹⁰

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⁹ See “Providing a good auditory environment”, p.29.
¹⁰ See article 17.
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- enhancing what might be called the natural features of communication such as facial expressions, tone of voice and, possibly, gestures
- using one or more augmentative means of communication, such as signing or objects of reference.

Practitioners should also support each person to communicate expressively in the most effective way. This requires practitioners to respond positively to the means each person uses to communicate. There is a very extensive range of communicative behaviours. For example, a person who does not communicate intentionally may communicate feelings, moods and basic meanings such as I want, I don’t want, I like and I don’t like through facial expressions, body movements and vocalisations. Another person, who does have some intentional communication, may request by leading other people to desired items and places. However, this person may nevertheless still communicate feelings, moods and some other basic meanings through facial expressions, body movements and vocalisations.

Practitioners need to respect the communicative means used by the people they support. This means they must respond effectively.

Some people who have limited expressive communication skills benefit when provided with one or more alternative means of communication. There are several means available, such as signing, objects of reference, photographs and pictures.

Selecting alternative and augmentative means of communication

Deciding how best to support a person’s communication using AAC is a difficult process. It depends on several factors, including the person’s

- current expressive communication skills, including the means of communication he / she currently uses and whether he / she communicates intentionally
- interests

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11 But caution is needed; see “Using more than one augmentative means of communication”, p.8.
12 See article 14.
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- cognitive abilities
- motor skills
- hearing
- vision
- touch.

A detailed discussion of selecting AAC means is not provided here at present. The intention is to add further material on this in the future.

The remainder of this article examines some of the means of communication most commonly employed by practitioners who use the Total Communication approach. This is a complex area, and for the sake of clarity, there is some repetition in this article.

**Using more than one augmentative means of communication**

It may seem to be appropriate to use more than one augmentative means of communication for some people who have visual impairment and additional needs. However, it is important to note that doing so could result in some people becoming over-loaded with sensory information. This is particularly likely to be true of people who have visual impairment and autism.

This can be illustrated by referring to Su, who benefits from the use by practitioners of both signing and objects of reference. She also likes music, is interested in smells and has a good understanding of routine. Thus, consideration has been given to augmenting spoken language with a combination of all these means.

A possible course of action is to present the augmentative means in sequence on each occasion to inform Su she is about to have a music session. So, for example, Su could be informed first with

- the spoken word *music*, accompanied by the sign
- then with the object of reference for music: small hand-bells
- followed by the sound of reference for music: a brief part of the music always used to open music sessions
- followed by the smell of reference for music: brief exposure to the after-shave always warn by the person who leads the music session.
However, a risk with this approach is that Su may not realise that each of these stimuli is intended to carry the same message. If the stimuli need to be presented slowly to reduce the risk of sensory overload, the object of reference, the sound of reference and the smell of reference will not accompany the spoken language. It would be possible to repeat the word *music* as each augmentative means were used. But if that were the case, it would add yet more sensory stimulation.

An alternative approach is to use the various augmentative means for different purposes. In this way, on any one occasion, spoken language would only be accompanied by one augmentative means.

For example

- to inform Su that she is about to have dinner, the spoken word *dinner* could be augmented with the object of reference: the spoon she uses
- when greeting Su, the spoken word *Hello* could be augmented with the sign
- to inform Su she is about to have a bath, the spoken word *bath* could be augmented with the smell of reference for bath: brief exposure to the bubble-bath used
- to inform Su she is about to have a music session, the spoken word *music* could be augmented with the sound of reference for music: a brief part of the music always used to open music sessions.

The latter approach, using different means for different purposes is likely to be the better one for most people who have visual impairment and additional needs.

### Using signing to support receptive communication

Signing is often very helpful for someone who understands little spoken language, particularly if his or her hearing is impaired. This can be the case even for people with little functional vision. In addition, it is easier for some people with learning disabilities to understand signs than spoken words. This is because they find it easier to understand visual information than auditory information. It may also be that signing
supports understanding because the person receives the message in two different but complementary forms.

**Signing adapted for people who have visual impairment**

Although signs are essentially a visual form of communication, they can be modified to improve their accessibility to people who have visual impairment and additional needs (Lee and MacWilliam, 2008). The Canaan Barrie sign vocabulary uses signs from British Sign Language as a base. They have been modified to give auditory and tactile feedback.

Using this approach, signs can be made in three ways:

- in front of the person
- on the person’s body
- hand-under-hand.

The method adopted depends on the person’s needs and preferences. In particular, of course, it is important to consider the person’s functional vision.

If the person does have some useful sight, practitioners should sign in front, ensuring they are in the person’s visual field, and at the correct distance. If appropriate, they should sign close to the person so he / she can hear and feel the currents of air caused by the hand movements.

For other people, on-body signing is appropriate. However, this must always be done sensitively and only with people who readily accept this approach.

When signing to support a person’s understanding, it is important to use the hand-under-hand approach: the practitioner offers his / her hands to the person. The person is then able to accept or reject this invitation to become involved. If the person accepts, the practitioner can then proceed with forming the sign. If the person rejects the approach, this must be respected and the practitioner should either wait and try again, or use another means to communicate on that occasion.

It is very important to use the hand-under-hand approach rather than the more common hand-over-hand approach. This is for the following reasons:
the person may find it intrusive when someone else takes his/her hands
many people who have visual impairment and additional needs are tactile defensive; because they cannot see well, they do not have a clear idea of what is going to happen when another person takes their hands
a visually impaired person’s hands are important for gaining information about the world, so it has been claimed that taking his or her hands is, in some ways, comparable to blind-folding a sighted person.

A new approach has very recently been published. This is TaSSeLs: Tactile Signing for Sensory Learners (Woodall and Charnock, 2012).

**Good practice when using signing to support receptive communication**

When signing, it is not necessary to sign all the words which are spoken. In fact, when communicating with people who have visual impairment and additional needs, it is important to reduce and simplify spoken language. This means that practitioners should reduce their spoken language to key words only. It is these key words which should be signed.

In addition, practitioners using signing should
- provide a good auditory environment
- sign the key words in spoken sentences
- ensure good lighting
- for a person who has some useful vision:
  - communicate in front of a plain background; this enables the person to focus on what is being communicated, instead of being distracted by a picture / wall display / items stored on shelves / what can be seen through a window
  - wear plain, unpatterned clothes to reduce visual distractions
  - ensure that there is good colour contrast between the signer’s hands and clothes.

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13 See article 17.
14 See “Providing a good auditory environment”, p.29.
Using signing to support expressive communication

The emphasis in the preceding sections has been on the use of signing to augment the spoken language used by practitioners. Signing is also used as an expressive means of communication by some people who have visual impairment and additional needs.

It should be noted that typically developing children only acquire spoken language because they are immersed in it from birth. Unfortunately, practitioners supporting people who have visual impairment and additional needs can never replicate this for the people they work with – clearly they cannot immerse those people in signing from birth; in fact, it is not really practicable to immerse them on a day-to-day basis. Nevertheless, there is a case for using signing at all times in the presence of those people whose understanding benefits from it.

It is also important to note that typically developing children who are in the early stages of saying words do not pronounce them in the way adults do. It is difficult for unfamiliar adults to understand many typical infants at the one, two and three word stages. Practitioners should recognise that people who have visual impairment and additional needs are unlikely to produce signs accurately in the standard way. Greater precision may come with use, but this will be a very long term process.

Supporting people who have visual impairment and additional needs to use signing expressively is a complex task. As with all means of communication, acquiring the ability to use signing expressively requires that communication takes place in natural, everyday situations.\textsuperscript{15}

Clearly it is necessary to support a person with the process of learning to form signs. It is not possible to discuss this issue in detail here. People who have the ability to imitate the actions of other people are likely to be at an advantage in learning to form signs.

When showing a person how to form a sign, it is important to use the hand-under-hand approach: the practitioner offers his / her hands to the person. The person is then able to accept or reject this invitation to become involved. If the person accepts, the practitioner can then proceed with forming the sign. This enables the person to feel the sign

\footnote{See article 11.}
and so begin to build up a mental picture of how to form the sign. If the person rejects the approach, this must be respected and the practitioner should wait and try again.

Using objects of reference to support receptive communication

Objects of reference (Ockelford, 2002; Bell, 2009) can be useful for people who can process tactile information. Some people find this easier than processing auditory or visual information.

A major advantage is that objects are permanent and tangible, unlike spoken words and signs, which are fleeting and abstract. An object of reference can remain with the person for as long as necessary. This means that the person can refer back to it frequently. Objects of reference can thus be of value to people with poor memory skills and to those who become anxious unless they have a frequent reminder of what is happening. They can be particularly useful for people who have autism in addition to visual impairment.

It is essential to remember that an object of reference is an object that has a special meaning that the person has assigned to it. The crucial thing is not that practitioners assign meaning to it, but that the person using it does so.

This means that objects of reference should be individualised. This is necessary because what one person experiences in a given situation will differ from the experiences of other people. For example, one person may cling to the seat belt when travelling by car, whereas another may enjoy playing with the drop-down table on the back of the seat in front.

Good practice when using objects of reference to support receptive communication

The following rules should be followed when presenting an object of reference: the object should be

- exactly the same on every occasion
- presented immediately before the object, place, person, event or activity it represents
- used on every relevant occasion
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- presented in the same manner on each occasion
- left with the person throughout the event or activity it represents.

When using objects of reference, it is important that practitioners continue to use spoken language: objects of reference are designed to augment spoken language, not to replace it. It is helpful for practitioners to use the same spoken language each time they present any particular object of reference. It is important that practitioners reduce and simplify their spoken language.\(^\text{16}\)

**Using objects of reference to support expressive communication**

Objects of reference can also be used to communicate expressively. However, it is important to recognise that this can present significant difficulties. This is because, if they are to have any real value for this purpose, objects of reference must be available to the person at all times. This can be particularly difficult for people with very little or no functional vision, who may not be able to locate their objects easily. It is also difficult for wheelchair users, as providing access to more than one or two objects can be very difficult.

It may be difficult to establish the expressive use of objects of reference. A factor that may be significant here is the person’s ability to initiate. Many people who have visual impairment and additional needs are rather passive and do not readily take the initiative.\(^\text{17}\) People who have both visual impairment and autism are particularly likely to have difficulties initiating. A person who rarely or never initiates is likely to require a very structured approach to establish the expressive use of objects of reference. An approach that has been helpful for some people is a variation of the Picture Exchange Communication System (PECS) in which objects of reference are used in place of pictures.

**The Picture Exchange Communication System (PECS)**

It should be stressed here that people do not use PECS to communicate expressively. PECS is an approach to facilitating the expressive use of

\(^{16}\) See article 17.  
\(^{17}\) See article A.
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pictures (or objects): it is used to establish initiation – the ability to communicate spontaneously. It is practitioners and family members who use PECS. A person who has visual impairment and additional needs who is supported with the use of PECS will use some form of visual symbol, tactile alternatives, or objects, as appropriate.

**Using sounds of reference to support receptive communication**

Although objects of reference can be used to augment spoken language for some people who have visual impairment and additional needs, they are not appropriate for all such people: some people have no interest in objects, perhaps casting or even throwing any object presented to them; others do not discriminate between objects, treating them all in the same way. For these people, sounds of reference / smells of reference may have some value.

Some practitioners use a combination of objects of reference, sounds of reference and smells of reference. Whilst it is generally the case that Total Communication is concerned with promoting communication using as many appropriate means as possible, there is a very real risk of over-loading people with visual impairment and additional needs. The risks involved in this are discussed in “Using more than one augmentative means of communication” (p.8).

It is important to note that whilst visual and tactile experiences can be offered to individual people without others present being exposed to them, this is not possible with sounds. A sound one person likes may be aversive to another. Nevertheless, if used carefully, sounds of reference can effectively augment spoken language. For example, cutlery could be placed noisily on the table to represent dinner.

Some people benefit from musical sounds of reference. It might be helpful to demonstrate how they are used to support Sarah, a young girl who has visual impairment and autism. For Sarah, music lessons have a clear routine. Establishing this routine was made easier in some respects, as the lesson takes place in the school's music room, not in Sarah's classroom. This may help to make the routine more recognisable to Sarah. Before leaving her classroom, Sarah is supported to take from her schedule the object of reference (small bells) that represents music. Part of the music lesson routine is moving from her own classroom to the music room. During this transition, a member of staff quietly hums "I am the music man". In effect, this is a sound of reference. On arrival in the
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music room, a piece of music (part of Britten's "The young person's guide to the orchestra") is always played as a second sound of reference. As well as using routine to communicate to the person what kind of activity is beginning, it is useful to employ routine to communicate that the activity is finishing. Sarah's music lessons, then, always close with a third sound of reference; this is a piece of quiet, relaxing music (part of Rodrigo's "Concierto de Aranjuez"). The three sounds of reference used in relation to Sarah's music lessons are always the same, as is the routine.

**Good practice when using sounds of reference to support receptive communication**

The following rules should be followed when presenting a sound of reference: the sound should be

- exactly the same on every occasion
- presented immediately before the object, place, person, event or activity it represents
- used on every relevant occasion
- presented in the same manner on each occasion.

Sounds of reference should always be used to augment spoken language, not to replace it. Thus, when using sounds of reference, it is important to reduce and simplify spoken language.\(^{18}\)

**Using smells of reference to support receptive communication**

Smells of reference are used by some practitioners to augment spoken language, for example, when introducing activities, or even to represent the days of the week. However, it is important to note some major potential difficulties with regard to using smells. First, it must be understood that smells are very different from visual, auditory and tactile sensory experiences. Whereas a practitioner has considerable control over stimuli the person will see, hear or touch, it is much more difficult to control smells. The kinds of visual, auditory and tactile experiences used

\(^{18}\) See article 17.
to support a person’s communication are presented by the practitioner only when required and removed when no longer required. However, smells can linger, and it may not be possible to "cut off" a smell when it is no longer needed. Practitioners also have little control over the person’s casual exposure to smells; so, for example, if the smell of lavender is used as a smell of reference for a particular activity, the practitioner cannot prevent the person coming into contact with the smell of lavender at other times, such as when using soap.

As noted in “Using sounds of reference to support receptive communication” (p.15), visual and tactile experiences can be offered to individual people without others present being exposed to them. This is not possible with smells. Care is required, as some people, particularly those who have autism, have strong aversions to some smells.

Reference has already been made to the practitioner having relatively little control over smells; the person who has visual impairment and additional needs is likely to have even less control: if a smell is present, there is nothing the person can do to shut off that smell, except to leave the situation. This may often not be an option for a person who has visual impairment and additional needs, especially in an educational setting. In contrast, the person can

- look away from a visual stimulus, or close his / her eyes
- shut out an unpleasant sound, at least to some extent (e.g. by placing his / her hands over his / her ears, or by making a louder sound him- / herself)
- avoid an unpleasant tactile experience, by refusing to touch, or by withdrawing his / her hands.

Some practitioners provide smells of reference by using oils employed in aromatherapy, and other similar sources of strong smells. It is important to stress that there are safety concerns over several of these (BUPA website 19).

In general, then, smells of reference are problematic for people who have visual impairment and additional needs. A few smells, used in a

19 For information about the risks involved with using aromatherapy smells, visit www.bupa.co.uk/individuals/health-information/directory/a/aromatherapy#textBlock193534 Website accessed 2nd January 2013.
very carefully structured way may have a place for some people. For example, a towel or pair of swimming trunks impregnated with the smell of chlorine might be an appropriate object of reference to represent \textit{swimming}. The smell of coffee might be used to support the use of a cup as the object of reference to represent \textit{drink} – if the person were about to drink coffee. The use of smells in this way would need to be approached very cautiously.

**Good practice when using smells of reference to support receptive communication**

It is important to take proper account of the advice given on the BUPA website \(^{20}\) when considering the use of smells of reference.

The following rules should be followed when presenting a smell of reference: the smell should be

- exactly the same on every occasion
- presented immediately before the object, place, person, event or activity it represents
- used on every relevant occasion
- presented in the same manner on each occasion.

Smells of reference should always be used to augment spoken language, not to replace it. Thus, when using smells of reference, it is important to reduce and simplify spoken language.\(^ {21}\)

**Using visual / tactile symbols to support receptive communication**

Visual symbols have a variety of forms such as photographs, life-like pictures, pictorial symbols (i.e. line drawings), and abstract symbols.\(^ {22}\)

Photographs have a major drawback: they are specific, and people who have visual impairment and additional needs (particularly people who

\(^{20}\) See footnote 19, p.17.

\(^{21}\) See article 17.

\(^{22}\) There are several symbol systems; a list of websites for some of them is provided on p.32.
have autism) may not be able to use the precise information shown in a photograph and generalise it. Thus, they might be unable to understand the photograph if the real situation did not exactly match the situation in the photograph. For example

- if *home* is represented in a photograph taken on a sunny day, with a blue sky, the person may not understand that it still represents home on a rainy day, with a grey sky, or on a day when there is snow on the ground and the roof.

- if a person uses a photograph of his / her own cup, and that cup is lost, or has to be replaced for some reason, the person may not be able to link the photograph with any other cup.

It is probably best to avoid the use of photographs with people who have visual impairment and additional needs, especially those who have autism.

As pictorial symbols, including photographs, of course, are visual, their use with people who have visual impairment and additional needs is limited. However, some people in this group do have sufficient functional vision to make use of them.

In principle, it is possible to make a tactile version of a pictorial symbol, using Zy-Tex Paper and a Zy-Fuse Heater. However, the more detailed the pictorial symbol, the more difficult it is to make a clear tactile version. For some people it may be possible to gradually refine tactile symbols into Moon letters, and so introduce a tactile version of written language.

Like objects, visual and tactile symbols are permanent and tangible. Therefore, a visual or tactile symbol can also remain with the person for as long as necessary. This means that the person can refer back to it frequently. Visual and tactile symbols can thus be of value to people with poor memory skills and to those who become anxious unless they have a frequent reminder of what is happening. They may be very helpful to those who have autism in addition to visual impairment.

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23 These products are produced by Zychem Ltd. For further information, visit [www.zychem-ltd.co.uk](http://www.zychem-ltd.co.uk). Website accessed 2nd January 2013.

TOBIs (true object-based icons)

A TOBI is a true object-based icon: a photograph or line drawing, cut out in the actual shape or outline of the item it represents (Bloomfield, not dated; Stokes, not dated). This allows the user not only to see the symbol shape (assuming, naturally, that the person has some useful vision), but also to feel it. A TOBI is usually larger than the typical equivalent photograph or drawing.

There is a belief that using TOBIs supports people with communication difficulties to understand 2-dimensional representations. However, it is important to bear in mind that, although the TOBI is cut in the shape of the photograph or line drawing, it will feel significantly different from the object it represents. Thus, it may be very difficult for a person who has visual impairment and additional needs to make the link between the TOBI and the object.

In theory, TOBIs could provide an interim stage between objects of reference (perhaps miniaturised) on one hand and photographs / life-like pictures / pictorial symbols on the other hand.

It is important to note here that TOBIs based on photographs (like photographs themselves) have a major drawback: they are specific. It is probably best to avoid the use of TOBIs based on photographs with people who have visual impairment and additional needs, especially those who have autism.

Good practice when using TOBIs / visual / tactile symbols to support receptive communication

The following rules should be followed when presenting a TOBI / visual symbol / tactile symbol: the TOBI / visual symbol / tactile symbol should be

- exactly the same on every occasion
- presented immediately before the object, place, person, event or activity it represents
- used on every relevant occasion

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25 See “Using visual / tactile symbols to support receptive communication”, p.18.
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- presented in the same manner on each occasion
- left with the person throughout the event or activity it represents.

When using TOBIs / visual / tactile symbols, it is important that practitioners continue to use spoken language: they are designed to augment spoken language, not to replace it. It is helpful for practitioners to use the same spoken language each time they present any particular TOBI / visual / tactile symbol. It is important that practitioners reduce and simplify their spoken language.\textsuperscript{26}

**Using TOBIs / visual / tactile symbols to support expressive communication**

TOBIs / visual / tactile symbols can also be used to communicate expressively. However, it is important to recognise that this can present significant difficulties. These are discussed in the section “Using objects of reference to support expressive communication” (p.14) to which readers are referred. Readers are also advised to read the section which follows that one, “The Picture Exchange Communication System (PECS)”.

**Using print / braille / Moon to support receptive communication**

Most people who have visual impairment and additional needs do not have the skills for reading. However, some people with visual impairment and autism are able to read and benefit greatly when their communicative partners augment their spoken language using print or a tactile alternative (i.e. braille or Moon). It is, of course, usually necessary to use large print.

Print / braille / Moon is mostly commonly used to label items in the environment and in schedules (see below). Readers are referred to the Resource Pack for children who have visual impairment and autism (RNIB, 2011) for examples of print / braille / Moon being used to augment spoken language.

\textsuperscript{26} See article 17.
For those who can recognise single words, these could be used as a more sophisticated version of visual / tactile symbols. Practitioners should adopt the good practice guidelines provided in the section “Good practice when using TOBIs / visual / tactile symbols to support receptive communication” (p.20).

Using print / braille / Moon to support expressive communication

Single words in print / braille / Moon can also be used to communicate expressively. However, it is important to recognise that this can present significant difficulties. These are discussed in the section “Using objects of reference to support expressive communication” (p.14) to which readers are referred. Readers are also advised to read the section which follows that one, “The Picture Exchange Communication System (PECS)”.

Schedules

Schedules (timetables) are extremely supportive for some people who have visual impairment and additional needs, particularly for those who have autism.

It is possible to compile schedules using

- objects of reference
- TOBIs
- visual / tactile symbols
- print / braille / Moon.

The simplest form of schedule informs the person of what is happening Now and Next. A variation of this is the First X, Then Y schedule. Such schedules are useful in the early stages, and with people who have a very limited understanding of time. They can also be useful for people who become anxious or excited if informed too far in advance of a future event or activity.

For more able people, a part-day or full-day schedule can be used.

When objects are used in schedules, they should be presented according to the needs of the individual person. One approach is to
attach objects to a board of some description, using Velcro. Another strategy is to place the objects in a series of boxes or compartments. As soon as the activity or event represented by an object is finished, that object is removed (preferably by the person). It is helpful to place the object in a *Finished* box to reinforce the concept that the activity or event is over.

Schedules can be arranged horizontally, as in writing, from left to right. However, some people understand a vertical, top to bottom, schedule better.

Further information on the use of schedules with children who have visual impairment and autism is available in the Resource Pack (RNIB, 2011).

**Using voice output communication aids (VOCAs) to support receptive communication**

Simple VOCAs may have a very limited role in promoting the independence of some people who have visual impairment and additional needs: it may be appropriate to use them to label rooms and items in the environment.

Naturally, by their very nature, VOCAs are of no value for supporting receptive communication in people who do not have any understanding of spoken language. Nevertheless, some people who have visual impairment and additional needs may benefit from simple recorded messages that provide information, as suggested in the previous paragraph.

However, VOCAs need to be used with caution. Some people who have visual impairment and autism have a deep interest in operating switches / buttons and engage in this frequently; such a person might become deeply interested in operating VOCAs, rather than using them to communicate. This can apply both to VOCAs intended for that individual person and those provided for other people.

An autistic person may become deeply interested in operating VOCAs because of:

- the sense of control it provides
- its predictability
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- the sensory stimulation provided by operating the VOCA’s switches / buttons; this may be the tactile stimulation arising from actually touching / pressing a switch / button; if the switches / buttons provide audible feedback, it may be this that motivates the person

- the sensory stimulation provided by the device itself as a result of operating the switches / buttons; in the case of a VOCA, this is clearly the spoken messages the device produces.

In some cases, the person who has visual impairment and autism returns to VOCAs repeatedly to hear the messages over and over again. Of course, this can cause the batteries to wear out very quickly. It can also obstruct people who use the VOCAs communicatively.

In addition, some VOCAs permit a new message to be easily recorded, deleting the previous one; a person may discover this and render the devices ineffective. This may apply to VOCAs put in place to support the receptive communication of other people.

Careful consideration needs to be given, then, to introducing VOCAs to support the receptive communication of people who have visual impairment and additional needs. This is particularly the case when deciding how best to meet the needs of a person who has visual impairment and autism, and of a group of people (e.g. in a school, college or day centre) which includes someone who has autism.

**Good practice when using VOCAs to support receptive communication**

The crucial requirement is to ensure that all VOCAs produce a clear, simple message that can be understood by the people they are intended to support. This means that care is needed when recording messages; it is important to ensure that this is carried out in a quiet environment to eliminate potentially distracting and confusing background sounds.

VOCAs need to be located where they can easily be found by the people they are intended to support. If they are used to label rooms, it is helpful if they are all located in a standard position in relation to the room; for example, they could all be situated adjacent to the frame, on the same side of the door as the door handle, and at the same height. Finding
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suitable locations for VOCAs is particularly important in relation to people who use wheelchairs.

VOCAs should not be relocated unless it is absolutely necessary; users must be informed in the event of any relocation and must be supported to learn the new locations.

A frequent check should be made of all VOCAs used to support receptive communication to ensure that the batteries are still providing sufficient power. If necessary, VOCAs should also be checked to ensure that the intended message is still produced when the switch is activated.

VOCAs will need to be cleaned periodically.

A key consideration is the nature of the switch on any VOCAs used in this way. It is, of course, essential that all the people who use each VOCA can activate the device. If several VOCAs are provided in a variety of locations, they should all be of the same type to optimise ease of use.

**Using voice output communication aids (VOCAs) to support expressive communication**

For some people who have visual impairment and additional needs, a VOCA can be used as a means of expressive communication.²⁷

The simplest form is the single switch (e.g. the BIGmack) into which can be recorded one message. Such devices are useful to enable people to participate in greetings sessions (e.g. producing *Hello*, *Good morning* or *Good afternoon*, as appropriate); they can also enliven stories which have a repetitive phrase.

However, the real value of a VOCA is that it can provide a person with the means to spontaneously communicate with other people. VOCAs can be seen as a panacea, with practitioners and / or family members becoming very keen to provide one for a particular person. However, before introducing a VOCA several factors should be borne in mind.

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²⁷ For website addresses of suppliers, see p.32.
A VOCA is likely to be of little, if any, value for a person who has no understanding of spoken language; this may seem obvious, but is sometimes overlooked.

Some people with very limited skills are provided with a simple VOCA (e.g. a BIGmack) so they can request a favourite item or event. It is not clear whether such people really understand that they are communicating with another person when they use a VOCA in this way. Some people probably use the VOCA as no more than a switch to obtain the item or event; they understand the cause-effect aspect of the situation, without being aware of the communicative nature of the process. That is, the person fails to understand that the item or event is provided by another person.

For those responding to requests made using a simple VOCA, it is good practice to use spoken language, as well as providing the requested item. So, as an example, when Mike activates the VOCA and requests Garden please, the practitioner should say Mike, garden and immediately take Mike to the garden. In time, Mike may come to understand that he is actually communicating with another person.

A very important factor that is often over-looked is that it is typically necessary to facilitate the person’s spontaneous use of the VOCA. Simply handing over the device is unlikely to be sufficient. However, for people who do not readily initiate, it may be difficult to promote spontaneous expressive communication by providing a VOCA; it may be more appropriate to promote the use of another means (e.g. objects of reference / TOBIs / visual symbols / tactile symbols / print / braille / Moon) and for practitioners to use the PECS approach (see p.14).

Thought needs to be given to ensuring that any VOCA is constantly available to the person; this often presents difficulties, especially for people who spend time in several different settings and for people who have physical disabilities. If a person uses only a wheelchair, that may not present too many difficulties, but if he / she also uses a standing frame and / or side-lier, and / or sometimes spends time on the floor, it may be difficult to ensure that the VOCA can be positioned appropriately in every situation.

Using a VOCA is very difficult or impossible in some situations. Obvious ones that come to mind are when the user is in the bath, shower or swimming pool; at these times, the person will almost certainly need to use an alternative means of expressive communication.
Thought must be given to storing the VOCA when it is not in use (e.g. at night, at bath / shower time, when the person is swimming).

A VOCA needs to be very resilient to withstand daily use (and possibly abuse in many settings).

Currently, and very sadly, some children who have been provided with a VOCA for use in school are unable to take it home because of difficulties with insurance; this clearly has implications for how the child communicates outside the school and means the VOCA is less likely to be the most appropriate means of promoting expressive communication; it is not known whether similar difficulties apply to adults who attend colleges or some kind of day provision.

Funding a VOCA is often extremely difficult; in some cases, a VOCA is funded only for use in a specified setting (such as the child's current school), which means that when the child moves on to another school, or transitions into adult life, the VOCA is withdrawn.

As noted in the section “Using voice output communication aids (VOCAs) to support receptive communication” (p.23), care is needed when considering the provision of a VOCA for a person who has visual impairment and autism, or for a person who is part of a group in which there is someone who has visual impairment and autism.

When considering introducing a VOCA, thought should be given not only to the needs and abilities of the intended user, but also to those of all potential communication partners, including family members, practitioners and peers; not only will the intended user need support with the VOCA, communication partners will require support regarding how best to respond to the person.

A crucial issue, often neglected, is that of whether a VOCA is actually going to improve the person’s expressive communication. The natural assumption is that it will. However, a VOCA can sometimes obstruct communication, rather than make it easier. If the person is able to communicate successfully using other means, he or she may not be motivated to learn to use a new means, especially if the VOCA is (or seems to be) complicated. Using a VOCA can also be very slow. Furthermore, some people dislike using a VOCA because they feel it makes them different from their peers. Fortunately, specially designed apps are now available for devices such as the iPod Touch, iPhone and
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iPad. These are very motivating for some people (perhaps especially young people) who are not willing to use a more conventional VOCA. Very careful thought is required, therefore, when considering the introduction of a VOCA to promote expressive communication in a person who has visual impairment and additional needs.

**Good practice when using VOCAs to support expressive communication**

Particularly when first introducing a VOCA, it may be necessary to provide support for the VOCA user’s communicative partners, including family members. All communicative partners need to be made aware of the good practice guidelines for communicating with a VOCA user which follow.

When communicating with a VOCA user

- ensure that the VOCA is properly positioned so the user can see it (if appropriate) and access it easily
- ensure that the VOCA is connected to a power source (if necessary) and is switched on
- be aware of how the person communicates yes and no
- look at the person, not at the device
- avoid standing and looking down on a VOCA user who is seated in a wheelchair or positioned in a side-lier: come down to the person’s level; the VOCA user may find it unpleasant, even threatening, if the communicative partner is standing over him / her and looking down
- avoid question-and-answer interactions and strive to have natural, 2-way conversations; this may require communicative partners to provide the user with plenty of time to select his / her own topic; it is also appropriate, as in any other conversation, for the communicative partner to tell things to the VOCA user
- avoid asking the user to demonstrate the VOCA to someone else (unless this has been discussed in advance and the user has agreed)

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28 See also article 13.
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- accept that the process of creating a message may be slow for the user; if it is slow, it is essential to be patient
- do not inadvertently indicate impatience whilst listening
- do not assume what the person is going to communicate, and finish the message for him / her
- check with the user if the meaning of the message is not clear
- remember that the user may also use other expressive means of communication; some VOCA users sometimes say a few words they find it easy to produce; some use some signing; and most use facial expressions, body language and so on
- **never** switch off or remove the VOCA without the person’s permission, even if you find some aspect of the person’s communication or behaviour challenging (unless this is really necessary to safeguard someone’s well-being).

All VOCA users need to be cleaned periodically and maintained. The latter includes ensuring that mains leads are not mislaid and are not damaged, and that batteries are charged.

**Providing a good auditory environment**

There are many background sounds in the environment that should be considered in relation to communicating with people who have visual impairment and additional needs. These include sounds from:

- lights
- heating systems, especially those with a fan
- air conditioning systems, which can be very noisy
- computers, including laptops
- data projectors
- peers, whether from within the same room or adjacent rooms
- practitioners / family members
- outside; this may include peers, staff, lawnmowers, traffic, aircraft, etc.

All of these sounds have the potential to distract people who have visual impairment and additional needs. Most people are able to filter out such sounds as unimportant. However, people who have visual impairment
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and additional needs may not be able to do this, and such sounds may be a major barrier to effective communication.

Background sounds also contribute to some people becoming overloaded with sensory stimulation. Over-loading people who have visual impairment and additional needs is discussed in “Using more than one augmentative means of communication” (p.8).

It is always important to consider the possibility of distracting background sounds ("auditory clutter") being a significant factor in the communicative environment for people who have visual impairment and additional needs. Such sounds are easily overlooked and considered as "normal" by those without any particular sensitivity.

Acoustic ceilings can help to reduce auditory clutter in schools, colleges and other similar buildings. These can be fitted in classrooms to reduce sound reverberation and echo. Other ways of reducing auditory clutter include providing curtains and soft furnishings, which help to deaden sounds.

In relation to schools, a teacher of the hearing impaired or multi-sensory impaired can advise on the provision of a good auditory environment. Doors should be kept closed when teaching is in progress to minimise distracting and irrelevant noise from outside.

For some people, it may be important to keep windows closed, though clearly this may be difficult in hot weather.

Concluding remarks

Communicating with people who have visual impairment and additional needs can be a difficult and complex task. It is essential to augment spoken language to support their understanding and to promote their use of whatever means of communication enables them to communicate expressively, that is to use the Total Communication approach.
References

Website accessed 2nd January 2013.

Website accessed 2nd January 2013.

Hansen, B. (1980) *Aspects of deafness and total communication in Denmark*. Copenhagen: The Center for Total Communication

This item could not be located on 2nd January 2013.


Website accessed 2nd January 2013.

Website accessed 2nd January 2013.

Website accessed 2nd January 2013.

Website addresses for Abstract visual symbols

There are many systems of abstract visual symbols, produced by several organisations. Any list is necessarily in sequential order, which could be seen as indicating relative merit. This is not the case, so the following list of the websites of the better known symbol systems is in alphabetical order. This is not an exhaustive list.

www.blissymbolics.org
www.makaton.org/shop/shopping/stockDetails/17466116
www.mayer-johnson.co.uk/category/symbols-and-photos
www.widgit.com

Inclusive Technology markets a wide range of communication software; go to www.inclusive.co.uk/software/communication-software

All websites accessed 2\textsuperscript{nd} January 2013.

Website addresses for Voice Output Communication Aids (VOCAs)

Liberator offers advice to support the selection of voice output communication aids; go to www.liberator.co.uk/resources/important-aac-device-features

The following (in alphabetical order) are amongst the companies that market VOCAs:

Inclusive Technology; go to www.inclusive.co.uk/hardware/communicators-and-controllers
Liberator; go to www.liberator.co.uk/products/communication-aids

All websites accessed 2\textsuperscript{nd} January 2013.