COMMUNICATION MATTERS

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How Technology Has Influenced My Life

by Stephen C.A. Lang

Stephen Lang is the joint winner of the 2001 Communication Matters Distinguished AAC User Award
The Award is made every year for the best papers submitted by AAC users for presentation at the CM National Symposium

I was diagnosed with Motor Neurone Disease in September 1998 at the age of 36. I am married to Denise and have three young children: Rebecca (12), Natalie (10) and Martin (7). We have a border collie called Shade, two rabbits and seven goldfish whose names I will not bother you with.

I have always been interested in technology and gadgets ever since I could pick up a screwdriver and from a very early age had a habit of taking things apart, much to my Mum and Dad's disapproval! So when I became disabled it was a case of finding out what technology was around to help rather than being frightened of having to use it.

I graduated from Napier University in 1985 with a BSc second class honours degree, which stood me in good stead for my first position in a small retail company as a management trainee with the specific remit of introducing a computerised stock control system. This was in the days before Windows and the Internet and was quite forward thinking for a small company. Introducing the technology to the staff was quite difficult as very few had used a computer before. However, once they saw

that the technology made their job easier they started appreciating what it could do and treating it as a friend.

After a few years I changed jobs to work for John Lewis plc. My job was again involved with stock control but on a much larger scale. I did, however, have to use a PC to analyse and produce reports on the control of stock within each department and to use the PC technology effectively I had to write my own programs. The reports and analysis must have been carried out to a higher than expected standard using the technology at my fingertips because I was promoted and moved to Bristol. Here I became the Manager responsible for all deliveries in and out of the store.

I thought that was the end of my involvement with technology but I now believe that if you are technologically minded you will search out different types and adapt them to meet your needs. After another two years or so I was promoted to Service Manager, the position I retired from. In this role I was responsible for all the services within the building which used a range of technologies. I was back 'in technology mode'.

The first thing to be affected by the MND was my speech, and I was advised to visit KEYCOMM to look at the different methods available to aid communication. The range of aids went from the alphabet written on paper in a grid to something called a Lightwriter. As you can imagine, my eyes were drawn to this interesting piece of technology in front of me, not knowing how dependent on it I would become.

> *...[I] was the first person to have the Lightwriter memory capacity doubled.*

I find the Lightwriter very simple to use and because of that I have used it to its full potential. Having an analytical mind and good memory have helped. At first I was using the basic Lightwriter but as my speech got worse and as I lost the strength in my arms I changed to a scanning Lightwriter. Having three young children I, like all other parents, was always having to repeat the same things, so storing common instructions as a code was a godsend. I soon ran out of memory space and was the first person to have the Lightwriter memory capacity doubled. A printer has now been connected to my Lightwriter so I can print lists of tasks for everyone in the family to do – a piece of technology that others maybe wish I didn't have. Seriously though this has been a great advantage.

My wife, Denise, bought me an electronic bible for my Christmas the first year since becoming a Christian because I could not turn the pages of a printed bible. I have also got a bible on CD-ROM for my computer.

My legs were the next part of me to be affected by the MND so I had to get an electric wheelchair and thanks to my Mum and Dad I got one with a completely new design, being able to turn on its own axis. This enabled me to get in and out all the rooms in the house easily. KEYCOMM came to the rescue with a mounting system for my Lightwriter.

Having a great interest in computers it was, and still is, important that I am able to continue using it. My sister lives in Canada and the only way I can communicate with her is using email. We are about to use more technology by installing web cameras so we can see each other as well as 'talk'. The Internet has been of tremendous benefit. Initially the family used it to find as much information as possible about MND and what research was being carried out. It was only through this technology that I was able to get knowledge of, and eventually get involved in, a drug trial which used the very latest technologies to administer the drug via an electronic pump inserted in to my abdomen.

The Internet has also let me play an important part in family life by doing the shopping online with Tesco, which saves my wife a lot of time. I am also able to do all the banking online which was always my job before I became less able. The difficulty with the computer has been to be able to use the keyboard and mouse as the strength leaves my arms. However, with help of my tireless Dad, KEYCOMM and AbilityNet I have been able to continue using my computer firstly with an infrared mouse and onscreen keyboard software called Handsoff. Recently I have had to take the next step because I found that I was unable to control the mouse properly. This entails using Handsoff with a switch rather than a mouse, and a scanning facility.

In February my independence was given a dramatic boost when an environmental control system was installed by the Bioengineering Department at Princess Margaret Rose Hospital in Edinburgh. This controls the lights, door entry system, emergency alarm, TV, video, radio and internal room alarm. It also controls a page-turner, provided by KEYCOMM, which allows me to read books and magazines once these are set up. It is the most complex system that has been installed in this area and gives me yet more to remember – the function of 90 different buttons! KEYCOMM arranged for the control box for the Environmental System to be set up alongside the Lightwriter. A button switch is required to control each of these systems. One of these is attached by Velcro to the back of my left hand and operated by pressing with the palm of my right, the other is strapped to the inside of my left knee and operated by pressing with the right. These button switches are interchangeable. Together with KEYCOMM and the Bio-engineers, we are currently looking at the possibility of single button control, an idea that I came up with to make things simpler. We may be able to incorporate the computer as well.

> *...my independence was given a dramatic boost when an environmental control system was installed...*

A recent introduction to the house has been a telephone with a loudspeaker. Perhaps not high technology but this has been a great boon since, not only myself, but the whole family can be involved in telephone conversations – particularly with my sister in Canada.

I would like to think that through the advances in technology the life of a disabled person has become less difficult. And who knows what the future holds? Hopefully with my technological mind I can contribute something that will help others in the future. Whatever way technology is used to help, the most important thing is that the operation of the given technology is kept simple because everyone is not so lucky as myself in having a technological background.

If I had been diagnosed with Motor Neurone Disease 10 or 15 years ago, I hate to think what my life would have been like without all the technology I have round me. I have become so reliant on all of it that I now regard it as part of myself. It is not only good for me but the whole family. I have experienced short periods without my Lightwriter, electric wheelchair, computer or environmental control system and I wouldn't be without any of them.

A final word! Although technology is very important for less able bodied people, the most important thing, I feel, is the love and support of your family.

Stephen Lang
stephen@lang129.freeserve.co.uk

A Postscript
We have now succeeded in operating the Lightwriter, the Environmental System, the computer and the wheelchair ON/OFF control from a single specs switch. We think this is quite an achievement in breaking new ground.
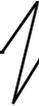
Toby Churchill (Lightwriters) Advertisement

My Dream

by Nicola Bush

Nicola Bush is the joint winner of the 2001 Communication Matters Distinguished AAC User Award
The Award is made every year for the best papers submitted by AAC users for presentation at the CM National Symposium

What do you think of when you look at me? Do you sometimes find it difficult to communicate with a disabled person, or perhaps you feel sorry for me because I cannot speak the same way that you do?

THAT'S JUST CRAZY!

I can speak and I do have a voice now (and isn't it amazing that my voice sounds so similar to many others').

I LOVE talking.

I LOVE Life and yes, I LOVE being in a wheelchair.

Since I have had my DeltaTalker communication aid so many fantastic things have happened to me. I have met so many people. I wouldn't change anything about my world, it's wonderful!

However, I admit it can sometimes be frustrating when able bodied people treat the disabled as if we are aliens, They don't know us. It isn't really their fault, I know, because they haven't been educated in how to talk to us. Perhaps they are frightened to speak to us in case they look silly. I do get disappointed when even some professionals in AAC don't communicate with me or other users.

I think that as a disabled person who uses a VOCA I have a responsibility to help people to not be afraid of speaking to people like myself. I like to approach others first, speak to them and try and make them feel at ease. I hope I do. I certainly enjoy meeting people and learning about them and their lives.

I often go to nightclubs in Manchester with my three older sisters. I love these 'Girls nights out'! At the beginning of the night other people in the clubs who don't know me just stare and often ignore me. Perhaps they are embarrassed in case they say the wrong thing or perhaps that I won't understand them. But it really doesn't worry me because after everyone has had a few alcoholic drinks then everything becomes easier for them! People then are not afraid to come and talk and dance with me. Isn't alcohol great? I love it!

I've often thought it would be a good idea to keep a bottle of wine in my bag at all times so that I can offer people a drink to make them feel more at ease!

My life, my world, because I now have the technology to be able to speak, is just brilliant, but I do feel selfish at times because now I have a voice and so many others who desperately need a VOCA don't have one.

Over the years I have visited schools where I have seen and met many other people who can only communicate using their eyes or the expression on their faces, exactly the same as I did just a few years ago. I hurt when this happens. It makes me feel so frustrated for them. I try and think of things they may want to say and I try hard to ask them questions which will only need a yes/no answer. I hope one day they will all get some help with technology the same as I did, to help them to communicate. At least whilst they are still in school or college there is a chance, but there are so many young adults who have left education and find it almost impossible to get a VOCA. It really makes me sad and angry. I want to do my best to help all these people.

Last year my friend and helper, Christine, filled in a form from SCOPE about communication aids. When she returned the form she also enclosed a copy of some work I had done 'Now I Can Say What My Brain is Thinking'. SCOPE used part of this work in their booklet *Speak for Yourself* to raise awareness of AAC. We were then invited to a meeting at the House of Commons. Whilst there we met Phil Woolas whom Christine had written to. He has been a great help in getting funding for the ACE Centres.

I have since also met the Prime Minister, Tony Blair, at the ACE Centre North and I was able to talk to him about getting communication aids for others who need them.

What a tremendous life I have!!!

I have the technology now to do so many things. I see the difference technology and speech and language therapy makes to the lives of those people at school who now have communication aids. They are no longer frustrated, they can tell jokes, make comments, talk with other VOCA users and use their machines to let people know what is in their minds.

Recently I went to a friends 18th birthday party. He has had a DeltaTalker for about one year. He uses scanning. It's slow but he was able to say at his party in front of everyone a big 'Thank You' to his family for all they have done for him and also that he loves them.

It was brilliant. That's what technology has done for me, for Philip, my friend, and for so many others.

When I was nine I would lie in bed and dream about one day meeting someone who would help me to speak. That dream came true and now I have another dream that one day people who need the technology to be able to communicate will be given that opportunity.

Christine tells me, "Don't be afraid to dream, for out of dreams can come miracles!"

I believe she's right.

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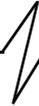
Techcess
Advertisement

The CM Achievement Awards 2001

The Communication Matters Achievement Awards are made every year to acknowledge the achievements of people who have recently made a major breakthrough in learning to use a communication system other than speech. Eleven Achievement Awards were made in 2001. Here are the stories of six of the winners, with more coming in the next issue.

Sophie McMullen

Sophie has athetoid cerebral palsy and has attended Frederick Holmes School since she was two years old. She is now eight years old. Sophie has some single spoken words which are intelligible to close family members but relies mainly on AAC to communicate with a wider range of people.

Sophie has always had wonderful non-verbal communication skills, brilliant facial expression and the most effective eye-pointing I have ever seen. She also has very well developed social skills and knows exactly how to wrap everyone (especially the men) at home and at school around her little finger.

At the age of four Sophie got her DeltaTalker with the Stepping Stones program, she worked hard to learn this in the early stages but there were many difficulties in setting up a suitable head-switching system which was strong enough to withstand the battering to which it was subjected. Alongside the talker, Sophie was developing her use of PCS symbols both for communication and for reading. She has always enjoyed using symbols and quickly understood the need for an encoded system to enable others to 'read' her eye-pointing.

Over the next couple of years she had many problems in accessing the DeltaTalker and Sophie became less keen to use AAC systems, despite progressing onto the Language, Learning and Living program. She wanted to use her natural voice in all situations and became rather frustrated when she was unable to convey her message. She did, however, persist with reading with symbols using eye-pointing. Sophie is now reading Ginn level 3 using a head mounted laser pointer which she has worked extremely hard to control sufficiently well to be able to directly select symbols from a board of 176.

Sophie uses the same laser pointer to access a 500 location symbol communication board, which she uses very effectively in class, particularly during the literacy and numeracy hours. This enables her to be a full and enthusiastic participant in group activities.

From September 2000 until February 2001 Sophie continued to use her low-tech communication but would only use the DeltaTalker under a great deal of pressure in class and in SLT sessions. In February Sophie had a sudden change of heart and, for reasons known only to her, seemed to realise that the talker had potential to broaden her range of communication. Since that time there has been no stopping her.

Sophie has developed her vocabulary knowledge, spelling ability and sentence building skills with minimal input from school staff. She uses her talker to shop for chocolate, to participate in class assemblies and drama sessions and, of course, to pass on gossip to her speech and language therapist! It is now impossible to pass Sophie in the corridor without being stopped for a chat or to hear about the latest addition to her wardrobe.

Sophie is fast becoming a competent communicator using a wide range of low and high-tech systems and non-verbal skills, she is now happy to demonstrate her use of AAC to younger pupils and visitors to school.

Judith Chapman, Speech & Language Therapist
Frederick Holmes School, lnglemire Lane, Hull HU6 8JJ

Misha Mistry

Misha is a twelve year old young lady. She has been at Park Dean school for a year. She is a delightful girl with a great sense of fun. Misha's disabilities mean that she uses a wheelchair to move around school. She can use her arms and hands to sign and point, which is how she mostly communicates. She can also use a symbol book. She does rely on people around her to anticipate her needs and to interpret her body movements and signs.

Misha rarely shows frustration, however we were aware that she was not able to participate fully in school activities and that her current communicative repertoire was restricting her. She likes nothing better than 'being in on the action'.

Her obvious interest in older students who used voice output communication aids led us to assess her ability to use a VOCA. She was delighted when we loaned a TechSpeak for a month. Initially we felt that a 32 overlay would be too overpowering – she proved us wrong! In the month that the TechSpeak was available to Misha she had four overlays created to be used for different situations and/or lessons. Each overlay had 32 different symbols.

Misha's class teacher and support staff were keen to ensure that opportunities were made available for Misha to use the TechSpeak functionally across the curriculum. The creation of the overlays became a real team effort with Misha being consulted along the way.

She has five overlays now which are interchangeable and all staff working with Misha know how to change the overlay. They are easy to alter and update.

We have now started the process of pursuing funding for a TechSpeak for Misha. A second loan period has reaffirmed our belief that this will make a great difference to Misha's school and home life. Staff from her junior school attended a User Day held at Park Dean recently and commented on Misha's use of the TechSpeak. They would not have believed that she could have achieved so much in a relatively short period of time.

Misha's happiness with her communication aid is so obvious to everyone. Her enthusiasm and determination is an inspiration to other students. She is developing confidence and awareness in her ability to communicate and she loves the reactions that she is getting from staff and students alike. The Achievement Award celebrates and acknowledges her successes.

Helen Newman, Specialist Speech & Language Therapist
Oldham NHS Trust, Cannon Street Health Centre,
Cannon Street, Oldham OL9 6EP

Philip Taylor

Philip is an eighteen year old young man whose severe physical difficulties affect all his limbs. His only means of communication is using his eyes to indicate Yes and No. In the past he has had symbol boards and books and more recently he has used colour coded charts very successfully. He understands conversations and instructions in the classroom and has a wicked sense of humour!

Philip has the most amazing smile that lights up his face and touches everybody around him. There are many times in the day when he experiences discomfort and pain. He can become frustrated, upset and angry. He has developed close relationships with staff and students in school as he relies totally on others to anticipate his needs, ask leading questions and\or interpret his movements and facial expression.

In March 2000 Philip started to use a DeltaTalker with a head switch to scan the 32 overlay. The language package is *Stepping Stones* by Judy Robertson. The first reaction to having a voice output communication aid was that he became noticeably calmer and there were fewer occasions of frustrated outbursts. I think he felt hopeful that his severe frustration in his inability to communicate effectively was to be resolved.

Philip's style of learning the location of vocabulary is very much exploratory. He wants to find the vocabulary independently and just loves it when he locates vocabulary that he can recall with particular people in specific situations, to surprise them. There is a real sense of empowerment, control and independence in his approach-that he has rarely experienced in the past due to the nature of his disabilities.

He has been able to tell us what he wants to store as a message through careful questions and symbols and to indicate where he wants the messages (i.e. selects available icons). He is now able to initiate conversations about football and his favourite television programme, 'Who Wants To Be A Millionaire'. He enjoys the songs and loves choosing the appropriate (and inappropriate!) song to suit the occasion. Sometimes other students put requests forward!

Philip is really trying hard to use the DeltaTalker appropriately and functionally in school and at home. He still needs considerable support from parents and school staff to ensure that opportunities are made available to him. However, I have been very impressed at his determination to achieve success when, for Philip, accessing the DeltaTalker is both physically and mentally demanding. He has to cope with involuntary movements that often result in mis-hits and misunderstanding.

At his recent eighteenth birthday celebration, Philip used the DeltaTalker to thank his parents and family for all the help they give. He told them he loved them. This was delivered in a packed hall of family and friends. It was a very emotional and inspirational occasion. We are all very proud of him and feel that he has achieved a great deal despite the difficulties he faces.

Helen Newman, Specialist Speech & Language Therapist
Oldham NHS Trust, Cannon Street Health Centre,
Cannon Street, Oldham OL9 6EP

Wesley Trowell

Wesley is eight years old and has cerebral palsy. He has had a voice output communication since the age of four. He has used his DeltaTalker with LLL for almost two years and accesses this, and his computer, using a head switch. He has worked so hard to develop his communication skills that he will be moving on from Frederick Holmes school to mainstream in January 2002.

Wesley has always been extremely motivated to use his talker and his computer with Switch Clicker and EZ Keys. He even used email independently to request catalogues so that he could order 'Good Work' stickers to give out to staff in the same way as the head teacher gives them to pupils, and to ask his local MP, John Prescott, a question about communication aids for children. Unfortunately he is still waiting for a reply from Mr Prescott!

Since being introduced to LLL Wesley and his mum have worked tirelessly at home to learn the vocabulary needed for his various activities as well as for school. He regularly attends

the Children's University, using his DeltaTalker to chat to the adult volunteers who come to help. He has recently joined a local cub pack where, he tells me, he uses his talker to give instructions when the games involve physical activities which he is unable to carry out.

Wesley is always eager to show off his use of the talker to visitors and to other pupils who might just be starting to use a VOCA.

He is a great ambassador for AAC within the school, regularly speaking in assemblies and Christmas performances. He is also extremely nosy, using his talker to ask about all sorts of things which are really nothing to do with him. However, he does it in such a pleasant way that he usually gets the information he wants anyway!

Wesley is able to fully access the curriculum using his various AAC methods, he asks lots of questions in class and as his teacher says, "He also listens to the answers and responds to what I say to him."

As well as his DeltaTalker Wesley uses a 500 location symbol communication board and reads using symbols. He accesses both of these using a head mounted laser pointer and, again is happy to demonstrate these to staff, pupils and visitors.

Over the past year, particularly as his reading skills have progressed, Wesley has really developed his ability to use English sentence structures and to use his talker to communicate fully rather than just giving a single word and hoping that others will guess his meaning. He now uses the DeltaTalker to play games ('Guess Who?' is a favourite) and to tell jokes.

I feel that Wesley is a great role model for other young pupils beginning to use AAC and as such is a worthy recipient of a CM achievement award.

Judith Chapman, Speech & Language Therapist
Frederick Holmes School
lnglemire Lane, Hull HU6 8JJ

Carmelle

Carmelle is a young lady with cerebral palsy who has definite views and opinions which she enjoys expressing. Until she had a Lightwriter (provided by the Sequal Trust) she relied on her speech which was quite difficult to understand, and she also had a stammer. Since getting the Lightwriter her confidence has improved as has her spelling and intelligibility. Her stammer has also gone.

As well as giving a talk in assembly she has also been to a conference about setting up a new wheelchair service for Wales where she gave her opinions using the Lightwriter.

She has made exceptional progress in a short time and I feel she is an ideal candidate for your achievement award.

Paula Dear, Specialist Speech & Language Therapist
Ysgol Erw'r Delyn
St Cyres Road
Penarth CF64 2WR

Tor Class
Dame Hannah Rogers School

Not only have all the communication aid users of Tor Class made outstanding progress with their communication this year, but together with the rest of Tor Class, they conducted the whole school assembly in July 2001. The class wrote a 'script' for the assembly. Several of the students were able to store their parts into their VOCAs in advance of the assembly. Class members then took turns to talk about the story of chocolate, to conduct the prayer and to introduce the hymn. Those who could joined in by signing.

Tor Class is full of great characters, who express their personalities by means of their AAC. Throughout the past year they have worked exceptionally hard at their communication skills, culminating in conducting the whole school assembly. During the assembly they tried hard to remember the non-verbal aspects of good communication, such as making eye contact with the audience.

Introducing Tor Class

Sarah Mann and *Sadie Howard* have each had a DeltaTalker for 3 years, and Sarah was trying out a Pathfinder for a few weeks at the time of the assembly. Since the beginning of this year they have passed the tests for four different levels on the Liberator Lesson Plans and put into use the grammar and vocabulary they learned.

Aaron Tailford has been learning to use a DeltaTalker for 18 months. He has worked very hard as he is determined to catch up Sarah and Sadie who are his great rivals. He has passed five levels on the Liberator Lesson Plans. When he uses his talker he is a great perfectionist in the construction of correct sentences.

Aaron Murch has recently started to use a DynaVox. He hates speaking in front of a group of people, so he used up a lot of courage to 'speak' in front of the whole school.

Shelina Mawji is, in her own words, an 'excellent' user of her Lightwriter, but does not normally like to speak to more than one person at a time, let alone the whole school.

James Hudson has been using a DeltaTalker for only a few months, but is working hard to learn Minspeak so he can hold his own with the others.

Janet Lesley, Head Speech and Language Therapist
Dame Hannah Rogers School, Ivybridge, Devon PL21 9HQ

Feeling With Symbols
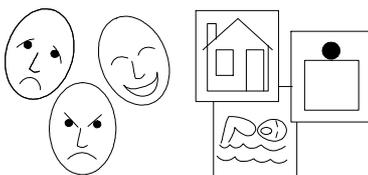
by Helen Dixon

This paper was presented at the CM2001 National Symposium, Lancaster University, September 2001

In our lives we all, at times, feel sad, angry, frustrated. When this happens to most of us we kick the cat, scream, cry, go for a walk, get drunk or whatever. However, people with limited expressive communication, especially people with learning difficulties, often do not have a cat to kick, get time out if they scream, or get a hug if they cry when all they want is to be left alone. They may be on medication that won't let them drink, or nobody will buy them a drink anyway. What they may tend to do is lash out at other people or themselves. Then they get told to stop, get time out, or whatever. Often, they possibly do not understand why they feel how they do and could not explain it if they did understand.

Working with John

I have worked for some years with a young man who I will call John, now 31 years old. He had been through quite a number of traumatic experiences such as leaving home and a family break up. John had a little speech that was not very clear, he knew Makaton but this was mainly used to reinforce comprehension, he rarely used it communicatively. He had some knowledge of Rebus symbols and used them for games on an ORAC but was not keen to use them communicatively. I have known John on and off since he was 16. When he was younger he was described as 'spiteful'. He tended to be aggressive towards people who were vulnerable, those who had annoyed him in the past (mainly people who made a lot of noise, or who spoke incessantly), and people who challenged the staff. He was especially challenging as he seemed to store grievances until a convenient time to get his revenge, often weeks later. The staff at the centre he attended were becoming very good at spotting warning signs and identifying potential targets but he was unpredictable at times. Generally he was a very angry and unhappy young man.

In therapy sessions for some time we had been exploring feelings initially making angry, happy and sad faces, then drawing faces which were colour coded with his choice of colours. After this, activities and photographs of people were placed on a line with one end being happy and the other angry as this appeared to be the continuum he operated along. John became quite good at this and very accurate and definite about the placement of people along the line. His positioning tended to be confirmed or explained when I spoke to staff afterwards and they said, "Yes, I know what that's all about", describing some incident.

John had a strong need for relationships but took a long time to develop rapport and trust with new people. Some of the staff at the Centre had known John as long or longer than I had and had developed very good relationships with him. We felt that he needed counselling to help him deal with a number of issues. I did not feel able to offer this, not being a trained counsellor. We did not feel he would benefit from counselling by someone who did not know him and could not easily communicate with him. It was decided, with the help of the psychologist, that one of the centre staff and myself should help him begin to explore his feelings using a 'Life Book.' Through this we would explore and help him express his feelings about things that had happened in his past, both happy things and not so happy, and perhaps this would help him to more appropriately express his feelings now. The book would be a concrete record of what he had done. It was his special book that was only seen by a small number of people and always with his permission.

> *It was his special book that was only seen by a small number of people and always with his permission.*

Rebus symbols were used to record his feelings in the book. Symbols were used, as they are concrete and provide a permanent record that he could understand. Rebus were chosen as in our area they are used quite extensively for literacy development and so are seen around a lot and are very familiar to people. Writing with Symbols 2000 (Widgit Software Limited, www.widgit.com) was an easy way of producing the symbols we needed.

Although he could not have put a name to it, or even possibly differentiated the feeling at that time, everyone who knew him well thought that much of the anger John appeared to be expressing was related to jealousy. This seemed to stem from when his first brother was born (when he was about 6 years old) and currently when other people got attention from staff. We talked about how he had felt before the birth of his brother and how he felt afterwards. Any not so good feelings we 'screwed up', cut up and put the symbols in a dustbin on the page of his book. Initially we also put them in the actual bin and made a lot of play of screwing up the symbols and throwing them behind us saying it was all a long time ago and was 'gone'. After a while this became quite a feature and he would say 'gone'

Wonderful Communication

Fantasy and Fairytales are the themes of the
ISAAC 2002 International Conference
to be held in Odense, Denmark 10-15 August 2002

Once upon a time, there was a group of people - about 10 per cent of the world's population - who had disabilities. About 25 per cent of them were unable to communicate because of the disabilities.

Then the good fairy waved her wand, and suddenly most of them could speak, read and write.

That more and more people can function at a much higher level in their everyday lives despite having severe impairments is really a fairytale come true. And where could it be more relevant to discuss this, and the many possibilities that the future will bring, than in Odense in the heart of Denmark - the hometown of the famous Danish author of fairytales, Hans Christian Andersen.

The ISAAC 2002 International Conference will feature an exciting, professional and scientific program, including a number of activities for AAC users. There will be entertainment and fantastic events as well as a large exhibition.

It's 'Wonderful Communication' when children with communication impairments now have the opportunity to play and go to school instead of living isolated.

It's 'Wonderful Communication' when youths with communication impairments are able to get an education, and adults can be a part of the work force.

It's 'Wonderful Communication' when the right to influence one's own life via communication becomes a reality.

It isn't only in fairytales that the ugly duckling becomes a beautiful swan.

A greater focus on the needs of users of AAC means that individuals with disabilities will experience very few situations in which they feel disabled.

Then we will no longer talk about "Karen who can't speak" or "Peter who can't write". Because they can, in their own way.

Now that's a real fairytale.

The conference committee looks forward to giving you a warm welcome at ISAAC 2002, which will be held in a modern, accessible centre near the home of H.C. Andersen.

For further information about ISAAC 2002:

www.isaac2002.dk

EASIAIDS
Advertisement

himself. On occasions he did not always want to use the symbols 'properly' but his facial expression is always very clear so it was possible to double check his choice of symbols with what his face was saying. On the first few pages of his book whenever the brother was mentioned John would put a *jealous* symbol by him. After a few weeks this stopped and this no longer seemed as important to him as it had in the past.

Initially the symbols used were *happy*, *sad*, *angry* and *jealous*, but over the months as John showed he was able to understand and use them effectively this list has increased and now consists of *bored*, *happy*, *OK*, *angry*, *silly*, *tired*, *ill*, *jealous*, *sorry* and *sad*. (Incidentally the symbol we use for *ill* is actually the *pain* symbol but staff felt the *ill* symbol which shows a person in bed may give John the wrong idea and may make him think that if he said he was ill he could go home to bed!) As well as using *sorry* to express when he is sorry about something that has happened such as an accident that happened to a number of his friends, John is encouraged to give a *sorry* symbol to anyone he has hurt. I printed and laminated about ten *sorry* symbols for this purpose and I am glad to say we still have some of them as he has not needed to give them to anyone.

> *...his challenging behaviour [has]*
>
> *noticeably reduced...*

The sophistication in the way he uses the symbols has increased. Although I was always fairly convinced that he understood what we were doing I did have moments of doubt and certainly many of the people working with him who knew him less well did not believe that he understood what we were doing. This doubt was at least partly dispelled when we began talking about him going to respite care places. On opposite sides of the page we placed his family at home and himself at the respite home. We predicted that he would place *sad, angry* and probably *jealous* on both pages, but instead he put these on the page where his family was, but put *happy* on the respite page. He had shown that he understood that while he was quite happy where he was and had quite a good time really, and he was sad and jealous that the others had stayed at home. He is always very precise about where the symbols are placed on the page, very much associating specific feelings with specific people or events.

During the course of these sessions his challenging behaviour noticeably reduced in the Centre, and has remained at a lower level, this is shown very clearly by the number of *sorry* symbols he has left. He began to use the symbols to tell some members of staff how he was feeling and so it was more possible for them to help him express his feelings of anger in ways that did not hurt other people. One advantage of the sessions was that it was possible for us to acknowledge his feelings and show him we understood he was sad or angry and that these feelings were fair enough but that he should not deal with them by hurting people. He was in control of the sessions. If he did not want to talk about something, or felt he had done

enough he closed the book. Some issues took a number of weeks before he was able to select the symbols showing how he felt about them. In addition to the symbols we also used a lot of photographs of people and places to help John relate to events. The 'Life book' is complete for the time being. It will be used again if John has any need to record his feelings about any future changes in his life. He still has individual sessions with myself and with the centre staff to talk about how he is feeling, to look through his book and he is also able and willing to use his symbols with staff in the centre to tell them how he is feeling at a particular time. He is therefore still able to express his feelings and have them recognised and acknowledged.

Severe Learning Difficulties

Symbols have been used in a similar way with Paul, a 14 year-old boy in a school for children with severe learning difficulties. He also shows challenging behaviour and can hurt both himself and others, he has no speech, communicating through gesture, vocalisation and is just starting to use some objects. In recent months he has also had some difficult times but tended to become distressed whenever any one mentioned anything. It was felt that it would be best to introduce the concept of feelings practically by observing when he had particularly enjoyed things in class and when he had not, in the last day or two. In this way it was possible to discuss how he appeared to be feeling about particular situations while they were quite fresh. This work was carried out by the speech and language therapy assistant and one of the classroom staff, both of whom had a very good relationship with him. Paul seemed to enjoy having the time to sit with people who would 'listen' to what he thought. Initially the feelings used were *happy* and *sad*; *worried* was soon added to this as this seemed to be his main concern and often a trigger for challenging behaviour. We now have *worried* symbols up all over his classroom as well as lying around, so that if he is feeling anxious he can take one to someone he knows who would try to reassure him or provide him with an explanation of what is going to happen. A symbolised timetable also helped overcome his concern as well as symbols used to tell him where he was going after school and who would be there. Paul has also responded very positively to these sessions, becoming more responsive and demonstrating more need and desire to communicate, not just in his sessions but generally. He will now seek out the people he knows he can communicate most effectively with. School staff have commented on his increase in desire to communicate and interest in other people. He is using symbols both at school and at home to help him understand what is going to happen.

Conclusion

'Feelings' symbols tend to be now included on many of the communication boards we make and in many cases these are among the first symbols to be used. Enabling people to express their feelings and acknowledging that their feelings are valid and that they are entitled to feel happy, sad, angry, or bored helps them develop a further understanding of the usefulness of communication.

Helen Dixon, Speech and Language Therapy Service
Morecambe Bay Primary Care Trust, Fairfield Centre,
Fairfield Lane, Barrow-in-Furness, Cumbria LA13 9AJ

The Rebus Symbols Development Project

by Helen Whittle and Tina Detheridge

This paper was presented at the CM2001 National Symposium, Lancaster University, September 2001

One of the great things about Communication Matters and the annual National Symposium is that it attracts such a wide range of professionals, all willing to share their knowledge and enthusiasm freely. At Communication Matters 2000 a group of us got together to initialise a project to look at revising the Rebus Symbol set. This paper discusses the work of that project.

The increase in symbol use both for direct communication and as a support for literacy has put a strain on the existing symbol set, and it was felt that it was time to review it, both in terms of its style and structure and to enable it to move forward to address changing requirements. Following the meeting at Communication Matters, and a follow up meeting at Widgit, a project was inaugurated, to be co-ordinated by Helen Whittle, supported by Tina and Cate Detheridge at Widgit, and a consultative group of advisers. 23 people volunteered to join this group, drawn from a wide range of professional backgrounds and including an AAC user.

The project took the format of sending a series of questions to the group with a deadline. They were asked to answer the questions over a cup of coffee or in consultation with the symbol users they worked with. The replies were of a consistently high standard and were very detailed. All available space on the feed back forms were used to let us know what people thought of the symbols.

Initially the original symbols were examined closely to identify the key elements in the system, such as a question mark or shop symbol. These were then printed out as documents to enable us to look at all the symbols using this key element. In this way it was possible to identify where a group of symbols existed that followed a joint logic. It was also clear where there were anomalies. Printing the symbols without reference to their meaning more easily enabled us to identify any symbols that needed to be re-drawn because of the quality of the drawing rather than the construction of the symbol.

Figure 1 Inconsistencies of 'old' symbols for shops

Some categories of symbols were easier to rethink than others, such as the symbols for shops (Figure 1) and other buildings. Once a suitable key item had been found then the whole group of these symbols could be redrawn. These groups of symbols were the first to be put out to consultation. These were a good place for the project to start as in general they did not take too long to think about and agreement was reached quickly. In this way the consultation process became clear for all members of the group and the project produced some results fairly quickly.

Figure 2 Revised symbols for shops

As a result of this feedback new symbols have been drawn (Figure 2). Where there were no suggestions about alternative symbols from the consultation group or where there was no consensus a number of alternatives were drawn. These were sent out for further consultation. When these replies were returned the final decision about the content and format of the symbols was made from the consensus reached by the group.

Some of the Issues Examined

The use of emphasis in symbols

As the Rebus symbol set developed, emphasis was shown by the use of arrows or size. The arrows used were all different. Arrows are not generally understood by people with a learning disability. Their use was therefore kept to a minimum. Arrows are used in four ways in the symbol set: to show movement, to identify a specific area of the symbol, to indicate action, and as tense markers. All of these have been drawn with a specific style, which is used consistently throughout the symbol set e.g. all tense markers are straight, thin arrows (Figure 3).
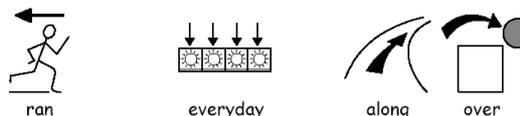

Figure 3 Arrow Markers

Combined symbols versus one symbol per word

In the Rebus symbol set there were certain symbols that were used to represent more than one word e.g. 'How much?' and 'Again please'. In reviewing the set we have aimed to reduce this use of symbols to a minimum. There will therefore be more use of individual symbols to represent single words where appropriate, as in 'Geography lesson'. The principle will be to use two words where this will represent the concept, and only create additional symbols where necessary, as in 'wedding dress' or 'life jacket'.

Plurals

The clear representation of plurals is an interesting question. At various times different solutions have been offered to this problem. In the main, regular nouns have not been represented by any plural indicator, although irregular ones, such as 'mice' have had a multiple image. It was still felt to be inappropriate to use an 's' suffix to represent plurals since they could only be able to be used with regular nouns. This became more obvious when looking at the symbol set for use in a number of different languages. The decision has been to put multiple representation for some of the basic vocabulary at level 1 and to use the qualifier at level 2 (Figure 4).

cars   trombones   suitcases   teachers

Multiple image   Plural indicator   Plural people
- level 1 only   - for all nouns
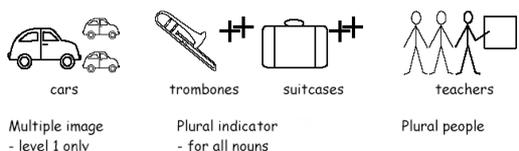
Figure 4 Example of plurals

International Considerations

Writing with Symbols 2000 is currently being translated into a number of languages. In reviewing the whole of the symbol collection there has been the opportunity to remove some symbols that are specifically suitable for use only in the UK. In doing this it appears that each set of Rebus symbols will need a small separate library that contains those symbols which are culturally specific. One other area that has made the symbols more suitable for an international audience is the removal of the majority of text from the symbols, which, it could be argued, might in any case be more appropriate for symbol users.

Other Considerations

At times there have been two clear viewpoints about a certain category of symbols and this has tended to be a split between those professionals working with people using symbols to develop literacy and those using symbols to support communication. This has in part lead to the development of two wordlists. To address the different communication and cognitive needs of symbol users, two levels of wordlist will be developed. In level one, there will be fewer abstract symbols, and where appropriate there will be more illustrative alterna-

tives for some concepts, and in the case of plurals the most basic vocabulary will be represented by multiple images, whilst in a level 2, plurals will be shown by the plural qualifier.

Some technical changes are also being implemented: The new symbols will be in a different file format, making them with thicker lines, and thus more suitable for importing into DTP and other software packages. As more powerful computers become commonplace, the wordlists needed to use these symbols in Writing with Symbols 2000 can be much more extensive, including all the variations of a word. This means that there will be a much reduced need to use the option to 'match to shorter word'. It is this option that creates many of the howlers we see in symbol documents.

All changes to the Rebus symbol set have been done whilst considering the needs of symbol users. The changes have been done in such a way as to add to the present symbol sets available and not to duplicate them. The work is nearing completion. Helen presented the summary at Communication Matters 2001, one year after the project start, and there was a very positive response. We believe that this new set will complement the coloured PCS symbols which are particularly suited to direct communication, by extending the options for literacy and for users requiring more detailed vocabulary.

Helen Whittle and Tina Detheridge
Widgit Software Ltd., 26 Queen Street,
Cubbington, Leamington Spa CV32 7NA
literacy@widgit.com

There's so much at

www.communicationmatters.org.uk

Sensory Software International
(Pocket Winspeak)
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Trustees News

from Janet Scott, Chair of Communication Matters / ISAAC-UK

It was good to see so many of you at this year's CM National Symposium at Lancaster in September – to meet up with old friends and to make new ones. This year's Symposium was the largest yet, with over 320 participants. The George Fox building was packed and we now have to seriously consider the need to explore larger venues for future conferences. Thank you for all your feedback – we really do value it and use your comments to try and improve things for future years.

New Trustees

At this year's AGM three new people were voted onto the Board of Trustees: Steven Bloch, Joe Lenartowicz and Janice Murray. Helen Whittle was re-elected. I would like to thank the six other people who agreed to put themselves forward as potential Trustees – I am sorry you weren't successful this time around…maybe next year? It was really good to have such a response to the Call for Nominations – it was very hard only being able to vote for four people! A list of the 2002 Board of Trustees is given on the next page.

Volunteers

We are really keen to involve you, the membership, in what Communication Matters is all about – promoting AAC and sharing knowledge, skills and ideas. At the conference I asked for volunteers to be involved in some of CM's working parties and other activities. Fifteen people volunteered to help out in a variety of ways:

- **Reviewing** and selecting papers for the conference.
- **Promoting** Communication Matters by distributing leaflets, reviewing CM affiliated publications and conferences for other journals, etc.
- **Representing** Communication Matters at conferences and exhibitions. Contributing to the various working parties: strategy, publications, small grants, user awards.
- **Hosting** CM Regional Study Days and CASC Roadshows.

Thank you to the brave 15 – we *will* be in touch. And don't forget, it's not too late if anyone else would like to be involved!

On-line Activities

Another, perhaps more painless way to get involved and keep in contact with other people is to use the web site. This is being developed and extended all the time. Do tell us (at admin@communicationmatters.org.uk) if you know of any web sites that could be linked to our site, if you hear of any forthcoming conferences/exhibitions, etc. Join in the various discussion forums – this is your opportunity to moan about the service you have received (or to say how wonderful your experiences have been!), to ask a question about wheelchair mounting for communication aids, to ask for advice/information about something to do with AAC…or whatever. It is a useful link to the web sites for most of the companies selling communication aids, software, etc. in the UK.

Apply for a CM Award or Small Grant

This year we made two CM Distinguished AAC User Awards, ten Achievement Awards to individuals and one Achievement Award to a group. Well done to all those individuals – I'm looking forward to reading your entries in the Journal. Look out for the fliers for the 2002 Awards – why not put yourself forward, or nominate someone you know?

Another flier to look out for is the one announcing the CM Small Grants. We have up to £5,000 to give away to deserving projects in 2002. To get a copy of the application form all you have to do is contact the CM office. The deadline for applications is 1 May 2002. You will be informed by 30 June if your application has been successful or not. This year we gave out five grants – these projects will be described in the next issue.

'Focus on' Leaflets

The other main news to report is that the CM *'Focus On'* leaflets have, at last, been born. They have had a long gestation period but we now have seven leaflets available: *Accessing Communication Aids and computers, First Steps, How to be a Good Listener, Let your Hands do the Talking, Using Symbols for Communication, What is AAC? What can I say?*

The leaflets are designed to be easy to read and as jargon free as we could make them. We want to distribute them as widely as possible – so if you would like copies of any (or all) of the leaflets, just contact the CM office with the quantities you require. At the moment, they are free of charge for five sets or less (please enquire about postage and packing costs for larger batches). They could be handy for workshops/exhibitions you are involved with locally, to hand out at parents' groups, to give to colleagues, to leave in waiting areas...

Other Developments

I've just come back from a very worthwhile and interesting RAATE conference in Birmingham, where engineers, occupational therapists, speech and language therapists and others met to discuss Assistive Technology in general. Look out for information about this organisation of the CM website. AAC had a focus at this conference – it would be good to see that increase over the years.

I'm just off to meet up with a Member of the Scottish Parliament to finalise (hopefully) the arrangements for a debate about under-funding of communication aids and the current inequalities of provision in Scotland.

The final shape of the Communication Aids Project for children in England is becoming more established. These are exciting and positive times in the world of AAC, sadly not mirrored in the world at large.

I wish you all a very happy Christmas and a more peaceful year in 2002.

CM Three Year Strategic Development Plan: A First Year Progress Report

In November 2000, the CM Trustees put forward to the membership a three year strategic development plan that would pave the way ahead for Communication Matters. The Strategic Plan was initiated in January 2001. There were six main areas of the Development Plan. They were:

- Membership
- Information
- User Support
- Sales and Marketing
- International Links
- Innovations and Development

Objectives and methods to achieve each objective were specified and a time table for implementation was also drawn up. Please see the November 2000 issue of this Journal for the Strategic Development Plan in its entirety. Below is the progress made during the first year of implementation.

Membership

The identified objectives were:

a. to retain existing membership
b. to target specific groups and areas of the UK

Within this category of the Development Plan we have contacted previous members and existing members via a questionnaire to identify why they join CM and to get feedback on what members might want out of the organization. These results are being calculated and will be available to inform the Trustees on priorities for the coming years. We have also requested that each supplier member of CM include information about CM with all new communication aids purchased and to distribute CM leaflets at CASC Road Shows. This will give us the opportunity to publicize CM to new potential members but also to retain existing members. We have also created a small poster display on the aims and objectives of CM which can be displayed at exhibits around the UK. We have also begun to hold regional events in different areas of the country to attract new members to CM who may not be able to attend the large annual conference.

Information

The identified objectives were:

a. to improve distribution of information about CM
b. to form links with other agencies
c. to provide a forum for members to raise issues about AAC

During the first year, we have distributed a set of information leaflets on various areas of AAC. We have also developed a website which now serves as a forum for giving information and maintaining a dialogue on AAC issues. We have also begun to distribute other publications on areas of interest in AAC. Our first publication, *The Communication Skills Training Pack,* was launched at the CM2001 conference in Lancaster, and production should begin in the first quarter of 2002. We have also begun to develop links with other agencies in related areas and have been invited to send representatives to attend many conferences within the UK during the year.

User Support

The identified objectives were:

a. to continue to promote AAC users involvement in CM
b. to promote empowerment of AAC users in different areas of society

During this year, we have continued to offer a User Achievement Award to individuals and/or small groups of users of all ages who have made accomplishments during the year with reference to an AAC system and communication. This year we had a record number of applications and have made 11 awards (see Chair's Report on the previous page).

We also continue to offer a Distinguished User Award and this year we also had a large number of excellent entries and eventually chose two joint winners and one runner-up.

Sales and Marketing

The identified objectives were:

a. to increase distribution of CM materials and publications
b. to consider other publications to market

We have now identified a Trustee with specific responsibility in this area. The Trustees identified quite early that this would be an ongoing task and would be better achieved through identifying a coordinator from the existing Trustees.

We have also begun to advertise our publications on the website and through leaflets distributed to the membership. The Trustees had planned to be able to coordinate sending review copies of all our publications to magazines and other bodies for review but we have not been able to achieve this within the first year.

International Links

The identified objective was:

a. to exchange information and experiences from other countries

This objective has been partially achieved through the distribution of the CM Journal at an international level through ISAAC as one of its affiliated publication. The CM Journal had over 65 overseas subscribers in 2001.

We had planned to try and set up a forum for exchange of information from other countries possibly through the Journal. However, this has not been achieved and will hopefully be identified as a priority for the coming year.

Innovations and Developments

The identified objective was:

a. to support new innovations and developments in the field of AAC

We have been able to continue to provide and support a small grant award scheme to members/users and other professionals to fund new and innovative projects within the field of AAC. This year we had an increase in applications for these small grants and have awarded 5 small grants for various projects. The Trustees have already identified the funds to continue to support this scheme for the next year.

Future Activities

The Strategic Development Plan will be reviewed each year and the Trustees will identify priorities to focus on in the coming year. These priorities will be identified and posted in the Communication Matters Journal early in the new year. Look out for Part 2 of The Strategic Development Plan: The Way Forward.

The CM Trustees continually try to communicate with members and keep members informed. Hopefully this article has provided all members with a summary of what has been happening within CM over this year.

We would welcome any comments, feedback or new ideas that members have and invite you to contact CM on 0870 606 5463 or email admin@communicationmatters.org.uk. CM is always looking for new people with bright and innovative ideas to put themselves forward to work on any new initiatives. Do contact us if you would like to contribute in any way.

Debbie Jans
Strategy Plan Coordinator

News from CASC

Communication Aid Suppliers Consortium

CASC Road Shows

In 2002, Claremont School in Bristol will be hosting a CASC Road Show on 13 March, and Manor Hall in Leamington Spa will be the venue of a Road Show on 14 May. Please visit the Communication Matters website for more news and information of CASC Road Shows to be held during 2002 *(www.communicationmatters.org.uk)*.

Clarification of CE Marking for Communication Aids and Assistive Technology

Despite the fact that the European Directives concerning CE marking have been in place for many years and that clarification has been sought from the Medical Devices Agency (MDA) regarding the applicability of the Medical Devices Directive to communication aids and other assistive technology, there is still some uncertainty in the field as to which products should or should not be CE marked under the Medical Devices Directive.

CASC is continuing to seek clarification from the MDA on the precise requirement of the CE marking of AAC related products, as well as on a range of issues.

Do You Need a Small Grant?

Communication Matters welcomes applications for small grants. Consideration will be given to applications for projects or activities that further the aims of Communication Matters. Examples include:

- the costs of organising or travel to an **AAC User event**

- the costs of publishing an **information leaflet**

- the costs of a **social research project**

The closing date for applications is 1 May of each year. Applications will be reviewed by the Small Grants Committee and an external reviewer. Applicants will be notified of the result by 30 June.

For an application form, contact Communication Matters on Tel: 0870 606 5463 Email: admin@communicationmatters.org.uk

Diary Dates

18 January 2002   ACE Centre North, Oldham
Boardmaker Basics
Cost: £50+VAT (half day) Contact Tel: 0161 627 1358

18 January 2002   ACE Centre North, Oldham
Advanced Boardmaker
Cost: £50+VAT (half day) Contact Tel: 0161 627 1358

21 January 2002   ACE Centre North, Oldham
How to decide on an AAC system (Factors in assessment)
Cost: £100+VAT (full day) Contact Tel: 0161 627 1358

23 January 2002   ACE Centre North, Oldham
Switch Basics
Cost: £100+VAT (full day) Contact: 0161 627 1358

23 January 2002   CALL Centre, Edinburgh
Making Personal Passports on Computer
Cost: £50 (full day) Contact CALL Centre: 0131 651 6236

30 January 2002   ACE Centre North, Oldham
Ways to Support Recording for Pupils with Physical Disabilities
Cost: £100+VAT (full day) Contact: 0161 627 1358

6 February 2002   CALL Centre, Edinburgh
Getting to Grips with Clicker 4 (PC)
Cost: £50 (full day) Contact CALL Centre: 0131 651 6236

7 February 2002   CALL Centre, Edinburgh
Getting to Grips with Clicker 4 (Mac)
Cost: £50 (full day) Contact CALL Centre: 0131 651 6236

8 February 2002   ACE Centre North, Oldham
As Easy as AAC
Cost: £100+VAT (full day) Contact: 0161 627 1358

25 February 2002   ACE Centre North, Oldham
Clicker 4 Basics (for Windows)
Cost: £100+VAT (full day) Contact: 0161 627 1358

27 February 2002   CALL Centre, Edinburgh
Computers and Dyslexia
Cost: £50 (full day) Contact CALL Centre: 0131 651 6236

4 March 2002   ACE Centre North, Oldham
Getting Clever with Clicker 4 (for Windows)
Cost: £100+VAT (full day) Contact: 0161 627 1358

6 March 2002   CALL Centre, Edinburgh
Software to Support the Curriculum for Deaf & Hearing Impaired Pupils (PC)
Cost: £50 (full day) Contact CALL Centre: 0131 651 6236

6 March 2002   ACE Centre North, Oldham
Play through Technology
Cost: £100+VAT (full day) Contact: 0161 627 1358

8 March 2002   ACE Centre North, Oldham
Boardmaker Basics
Cost: £50+VAT (half day) Contact Tel: 0161 627 1358

8 March 2002   ACE Centre North, Oldham
Advanced Boardmaker
Cost: £50+VAT (half day) Contact Tel: 0161 627 1358

13 March 2002   Bristol
CASC Road Show at Claremont School, Bristol
Contact: Sally Chan Tel: 0117 924 7527

13 March 2002   CALL Centre, Edinburgh
Getting to Grips with Writing with Symbols 2000
Cost: £50 (full day) Contact CALL Centre: 0131 651 6236

15 March 2002   ACE Centre North, Oldham
Assess for Success!
Cost: £100+VAT (full day) Contact Tel: 0161 627 1358

20 March 2002   ACE Centre North, Oldham
Switched ON! Maximising Success for a Switch User
Cost: £100+VAT (full day) Contact Tel: 0161 627 1358

20 March 2002   CALL Centre, Edinburgh
Exploring Internet Resources for Pupils with SEN
Cost: £50 (full day) Contact: CALL Centre 0131 651 6236

23 March 2002   Edinburgh
MAPE UK Conference
Contact: CALL Centre 0131 651 6236

24 April 2002   Motherwell
ICT / SEN Update 2002 (Motherwell)
Cost: FREE Contact: CALL Centre 0131 651 6236

25 April 2002   Inverness
ICT / SEN Update 2002 (Inverness)
Cost: FREE Contact: CALL Centre 0131 651 6236

26 April 2002   CALL Centre, Edinburgh
ICT / SEN Update 2002 (Edinburgh)
Cost: FREE Contact: CALL Centre 0131 651 6236

14 May 2002   Leamington Spa
CASC Road Show at Manor Hall, Leamington Spa
FREE Contact: Helen Whittle Tel: 01926 317700

Parents and Enablers Page

Announcing the
Communication Aids Internet Support Group

by Joe Lenartowicz, CM Trustee

One Voice UK is an email and web-based support group for UK based users of communication aids, and their families.

The principal focus is on high-tech electronic voice output communication aids (VOCAs), including:

- vocabularies and their organisation
- adaptation to specific user requirements
- access and operational issues
- service, supply, support and training issues
- page exchange
- tips and advice
- social and community issues relating to AAC use
- educational and curriculum issues

Generally high-tech aids are seen as part of a wider communication strategy involving symbol-based communication books and boards, eye-pointing boards, and signing. Discussion of these topics is encouraged especially, but not exclusively, where they are used in conjunction with high-tech aids. The group is not designed, however, for supporting people who solely use signing.

The group is for all UK users of communication aids (electronic and 'low-tech' aids), their families, carers and enablers. Also welcome are support workers, teachers, therapists, suppliers and advisors. Membership is free.

The group can be used either through email (emails sent to the group are distributed to all members) or through a web site where messages can be browsed.

> To join the group, send a blank email to:
> **onevoiceuk-subscribe@yahoogroups.com**
>
> Further information from:
> **onevoiceuk-owner@yahoogroups.com**

Or you can join the group by visiting the website:
http://groups.yahoo.com/group/onevoiceuk

VocaFlex
(Toby Churchill)
Advertisement

Case Study:

AAC and Aphasia

by Jackie Reeves and Susan Harris

This paper was presented at the CM2001 National Symposium, Lancaster University, September 2001

Introduction

Over the last few years the AAC Assessment service at Mary Marlborough Centre (MMC) in Oxford has seen several clients in a wide age range with a CVA (stroke), aphasia and on-going AAC needs. These clients have been approached in different ways. This case study might lead to further discussion about the best ways to support people with aphasia over several years.

What is the role of the AAC assessment service and when should assessment take place? How does this link in with the work of the local speech and language therapy service? How do we provide regular help with AAC systems, computers and developing language skills? How do we adapt systems to someone's changing, hopefully improving, situation? What is the role of a speech and language therapy service assistant?

Mary Marlborough Centre has close links with the Oxfordshire speech and language therapy service and the two members of staff involved in this presentation are employed by them.

Background

Ruth suffered a CVA in July 1997. She remained for a time in an acute hospital and eventually was moved to the local rehabilitation centre as an in-patient. She received Speech Therapy help in both these settings as she was severely aphasic from the outset with no speech. She is married for the second time with two small children, who were both pre-school at the time of her CVA. Her husband is a teacher and Ruth was a Cambridge graduate and also a teacher. She had been teaching Economics and Business Studies and was a regular computer user, and had also done some work as a financial consultant. Her physical condition improved so that she was able to walk with a stick but she retained weakness on her right side (right hemiplegia).

The AAC service was contacted in May 1998 as Ruth was soon to be discharged home but would continue out-patient speech and language therapy at the Rehabilitation Centre. The request was for a portable computer system. Her friends had set up a Trust Fund to pay for this.

Extent of Ruth's Language Difficulties (aphasia) on 18 June '98

- **Verbal Expression** – Ruth had no 'useful' speech. She could repeat some words and used some perseverative phrases. She became frustrated and gave up if her attempts at speech were not understood.

- **Comprehension** – Ruth had considerable problems understanding what was said to her and relied heavily on non

Ruth using a communication card

verbal information. She needed people to speak slower and somewhat simplify what they said to her without raising their voices.

- **Reading** – Ruth maintains that she could read with understanding from shortly after her CVA. This was not noted in the original assessment or in discussion with her local speech and language therapist. She was 'reading' by using pictures and guess work to aid understanding. Simple words and sentences could be understood in a quiet environment. She could not read aloud. She seemed worried that people would confuse her aphasic difficulties with lack of intelligence.

- **Writing and Spelling** – Ruth was having great difficulties. She was trying to write with her left hand but could not spell the simplest words spontaneously and had no idea of how to construct a sentence. She had not tried to use a computer.

Spontaneous Communication (18 June '98)

Ruth was using extensive non verbal communication, facial expression, pointing and some gestures which were very hard to interpret, probably due to dyspraxic problems and perseverative movements. She used a lot of vocalisation with appropriate intonation.

She wrote some letters and words on a pad she carried around

but these were not understandable. She was able to draw well and used this method mainly with her children. She made it clear with drawing that she wanted a computer.

Discussion and Recommendations

Ruth attended for assessment with her local SLT. The problem around using a computer with reduced language skills was discussed. Ruth's friends wanted to purchase a laptop type device that she could use as a communication aid, to practise her word processing skills and eventually access the Internet and send E mails. She did not have access to the PC at home. It was not known who would support Ruth on a day to day basis as there was no SLT assistant at MMC at that time.

The AAC service felt that it would be better to start more simply and delay the purchase of a laptop. The recommendations were:

- Encourage use of low tech AAC.
- Borrow and try a Spokesman with pictures, words and use sixteen recorded messages.
- Borrow and try a Lightwriter SL35 to be used with stored memories a crib sheet etc. The local SLT would help with this. Ruth would access this with her left hand and would need a carrying case.

The local staff and friends were determined to press ahead with the purchase of a laptop. A demonstration of Winspeak was given to Ruth and further assessment from AbilityNet Malvern took place on 29 September 1998. A Norand Penkey computer with a touch screen, external keyboard, external CD-ROM and Winspeak software was purchased. Ruth was helped by the new SLT Assistants from MMC and the Rehabilitation Centre. The SL35 and Spokesman were returned as they were not found to be useful and problems with the Norand were mentioned. AbilityNet made a further visit.

Further Involvement

In 1999 another appointment was requested by Ruth and her advocate. She attended on 2 November 1999 with her local SLT as well. There seemed to be great discrepancy between what Ruth wanted and what the local staff wanted. Her advocate wanted something that would help Ruth to communicate better in everyday situations. Ruth wanted a Lightwriter. Her local SLT and friends wanted more use to be made of the Norand. The Norand was primarily being used for games with her children.

The local staff were asked to send in words and phrases for a communication book and a loan Lightwriter but for various reasons this did not happen. Ruth attended MMC in February 2000 for a scooter assessment with her advocate and the AAC situation was again reviewed. Ruth also attended a day hospital once a week and the OTs there were anxious to help. The SLT Assistant from MMC began a regular programme of visits to Ruth at the day unit in the Community Hospital. Ruth's language skills continued to improve. A Lightwriter was loaned and eventually an application was made for funding to buy Ruth her own Lightwriter.

SLT Assistant Involvement

The first involvement that the SLT Assistants (from the Rehabilitation Centre and MMC) had with Ruth was in May 1999

when it was decided that the assistants should try and alter cells in the Winspeak screen setup. Neither had any experience with Winspeak software so one read the manual and the other executed the instructions. It was felt that the manual was not easy to use and the software often didn't work as expected. A problems list was compiled which had to be sorted out by the software supplier. However, the assistants were able to make some progress making additions and alterations to the Winspeak cells.

The local SLT asked an assistant to observe Ruth in her own home, to find out how she interacted with her children and to encourage the use of the Norand for communication. However, it was clear that Ruth had her own, much more convenient strategies for communication and her children responded naturally to both her questions and requests. Her strategies included pointing to a calendar, facial expression, gesture, vocalisations and writing single words. She always kept a notepad and pencil in her pocket.

Ruth made it clear that she wanted a lot of Winspeak cells changed to enable her to speak to adults – her husband, in-laws and visitors. Ruth also indicated that she found it difficult to hear the voice on the Norand even on full volume. From March 2000, Ruth was visited by an assistant on a monthly basis. Ruth attended a weekly session at the local Community Hospital Day Centre, where the OT and a volunteer had encouraged her to use the computer to compile lists. Ruth wanted some of her lists made into handbag sized cards. These were made, with the addition of small pictures to back up the words, using BoardMaker for Windows. These were laminated back to back and she clipped them to her belt on a spiral cable. Several more cards were made
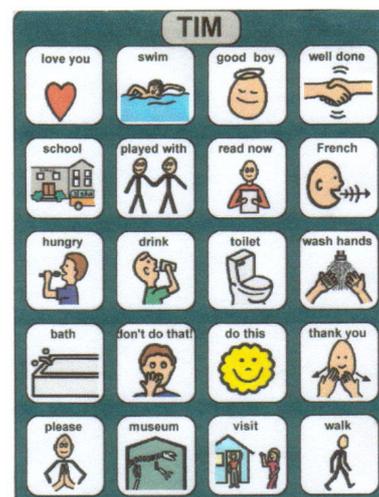
A communication card with PCS symbols

after this and the original ones updated as necessary.

Up to this point Ruth had not been able to use a Lightwriter without support. The assistant helped Ruth work out phrases from a list of words she had written and these were put into the Lightwriter memories. An alphabetical list of the phrases was produced to enable Ruth to memorise which letter each phrase was attached to. This was later made into another small card to attach to Ruth's belt clip. These phrases were up-dated and the card changed as Ruth's needs changed. Ruth became very adept at inputting her own memorised phrases. She was shown
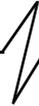
how to use abbreviation expansions, linked speech and other features on the Lightwriter as her confidence increased.

In December 2000 Oxfordshire SLT dept (Health) and Social Services provided money to purchase a Lightwriter for Ruth. All the saved phrases were updated and transferred from the loaned Lightwriter to the new one.

The Lightwriter was set up for making telephone calls in emergencies. Trial phone calls were made and received from Ruth at the Centre. She was also given help with her computer skills by the SLT assistant who showed her short-cuts and housekeeping. Some Sensory Software programmes were installed on Ruth's laptop, 'Windbag' and 'Hands Off'. She was interested in 'Hands Off' which is an on-screen keyboard. She felt this would make her Norand more portable as it had been supplied with an external Cherry keyboard. Penfriend software was also demonstrated.

The assistant's last task with Ruth was to compile a 'contacts folder', which kept all her lists and information in alphabetical order. Conversation phrase sheets were compiled and added to the folder which would help Ruth converse with new contacts when she moved. The assistant's last contact with Ruth was in April 2001.

AAC Review 22 January 2001

By this date Ruth was communicating well with the Lightwriter. Her spelling had improved and she was able to type single words on the Lightwriter but was not able to construct a sentence. She made excellent use of the memories. Her reading comprehension had greatly improved and she was very proud that she could now read *The Hobbit*. Her picture cards were mainly used with the children. She wrote single words and drew pictures to supplement her other forms of communication. She used the PC at the day hospital to make shopping lists, etc. but this was mostly copying. The Norand was only being used at home with an external keyboard to practise typing. The external CD drive had been borrowed by a family member.

In April 2001 Ruth moved to another part of the country. Her husband has a new teaching job there and she was put in touch with local SLT and OT staff.

Suggestions for Further Input

- Help Ruth access the Internet and send E mails. Hopefully using a PC at home.
- Regular help to update the memories on the Lightwriter etc.
- Work with aphasia computer programmes, e.g. Intact and React.
- Work on spelling and sentence construction using for example software programmes Penfriend, Wordbar and Text Help Read and Write.
- Enrol in an Adult literacy class at a College of Further Education.
- Join an aphasia contact group through Speakability.

Discussion

It is felt that AAC should be introduced alongside regular SLT, not when all else has failed. Assessment should be provided from an AAC centre in conjunction with the local staff. The

Ruth with a Lightwriter

concern of many people that using AAC will slow down speech recovery is not our experience. In contrast, the use of AAC seems to stimulate communication in general. AAC needs will need to be regularly reviewed and adapted. It is expected that aphasic clients will use a 'package' of AAC. More use should be made of special aphasia computer programmes and dyslexia software. People with aphasia will need regular support over a long period of time from SLT assistants or someone with a good understanding of the nature of aphasia. Funding of equipment for this client group should be recognised.

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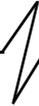
Cambridge Adaptive Communication (Cameleon 3 / Symbol for Windows) Advertisement

The Use of AAC as a Means of Supporting Patient Care in an Acute Setting

by Karen Stovold and Janice Murray

This study was a final year dissertation topic completed by Karen Stovold. The paper was presented at the CM2001 National Symposium, Lancaster University, September 2001

The AAC Needs of the Client in an Acute Medical Setting

AAC in the medical setting is commonly seen as a temporary measure (Yorkston, 1992). Clients arrive in this context with a variety of conditions with which it is hoped that, over time, there will be considerable recovery. This factor in combination with the transitory nature of hospitalisation impacts upon the assessment for, and implementation of, any AAC system.

The client's condition is usually at its most severe within the primary stages of hospitalisation. At this time AAC systems and techniques, such as E-Tran frames, communication books and alphabet boards are commonly supplied with the aim of stimulating purposeful interaction. As the client's condition improves more sophisticated systems may be used, or indeed, may become obsolete, as natural speech is regained.

Given the short term nature of hospitalisation, it would seem crucial that all acute care staff should have an awareness of what AAC is, and how it may be of use to them and the clients in their care.

The AAC Education of Acute Care Staff

Mitsuda, Baarslag-Benson, Hazel & Therriault (1992) suggest that "adequate communication is mandatory for good medical management" (Ch 5, pp 5). In many instances, for effective communication to take place with a client, the hospital staff may need to make use of an AAC technique. Once in place, all hospital staff have a role in the effective use of an AAC system. The speech and language therapist (SLT) is the key figure in the initial assessment and identification of a suitable communication system. However, they may not be the person communicating with the client on a frequent basis. Traditionally, this is seen as the role of nursing staff who provide for the client's primary medical and personal needs.

Physiotherapists, in terms of AAC, are involved in the optimal positioning of clients and one might expect them to find the use of an AAC system helpful to their intervention.

Murphy's study (1996) showed that all non-speech and language therapy staff considered their role as back-up to the SLTs work in implementing an AAC system. One possible reason for this reluctance to be actively involved in the use of an AAC system may be a lack of confidence and knowledge about AAC techniques.

From a review of curriculum content (Chartered Society of Physiotherapy, 2000), it appears that undergraduates receive no specific education on the types of communication difficulties clients may present with, nor on possible AAC intervention techniques. A similar picture is evident from a review of the content of RGN Nursing courses (Parkin, 1991), with the

exception of one post-graduate course available nationally called 'Care of the stroke patient' where typical communication impairments are described. In general then, one might conclude that the majority of training for these two staff groups, in areas of communication impairment and AAC techniques, occurs as 'on the job' education. So, it would seem inappropriate for an SLT to introduce an AAC technique to a client without an awareness of medical colleagues' knowledge, experience and attitude towards AAC.

The Study

This study attempted to assess nursing and physiotherapy staff's attitudes towards AAC, using a theoretical model of conversational analysis as a basis for evaluation. The model is that of Johnson's (1995) taken from Johnson, Baumgart, Helmstetter and Curry (1996) and referred to as 'the Sociocommunicative Filter Model'.

The model describes a number of dynamically inter-linked components assigned to either, the AAC user or the conversational partner (see Appendix). Individual components of the model are meant to be interpreted within the particular conversational and cultural contexts. The filter component represents the mechanism for evaluating success of information exchange between partners.

This study focused on specific components of the conversational partners' domain, namely: *Training, Team collaboration and Attitude Toward the Individual.*

Johnson et al (1996) describe *Training* as the amount and type an individual may have received. The communication partner's view on the appropriateness and usefulness of the training is evaluated.

Team Collaboration evaluates the individual's role within a team, e.g. hospital. In addition, there is an appraisal of the individual's views of their impact on the use of any resources to aid the client's recovery, e.g. AAC techniques.

Attitude Towards the Individual refers to the expectation the conversational partner has of the AAC user, e.g. to what extent does the conversational partner believe that working on augmented communication is worthwhile?

In this study the conversational partners were either nurses or physiotherapists. This model was used as a basis for interpretation of findings. A self report method (Coolican, 1996) was used to investigate attitudes of nursing and physiotherapy staff towards the use of AAC in an acute hospital setting. An attitude scale with 26 statements was analysed (Likert, 1932). Statements referred to either training, team collaboration or attitudes towards AAC users. Half of the statements were positive towards AAC and half were negative.

Respondents indicated whether they strongly agreed or disagreed with these statements. Ten nurses and ten physiotherapists from one hospital in the Northwest of England completed the scale. The respondents had most frequently encountered clients with communication deficits as a result of cerebral vascular accident, head injury and progressive neurological disease.

The Results

Hypothesis 1

There will be a significant relationship between the amount of AAC **training** received by nursing and physiotherapy staff and their rating of a positive attitude towards AAC.

The findings supported this hypothesis with a positive correlation (p<0.005) between an individual's score on items related to training and their overall score on the attitude scale. This suggests effective staff training will promote greater acknowledgement of a client's AAC system.

Hypothesis 2

There will be a significant relationship between staff's positive attitude towards AAC and their contribution to the **team effort** in implementing an AAC system.

The findings supported this hypothesis with a positive correlation (p<0.005) between an individual's score on items related to team collaboration and their overall score on the attitude scale. This suggests that care staff will promote use of a client's AAC system rather than deferring to the SLT.

Hypothesis 3

There will be a significant relationship between staff's **attitude** towards AAC and the **communicative competence of the AAC user.**

The findings supported this hypothesis with a positive correlation (p<0.005) between an individual's attitude towards the AAC users communicative competence and their overall score on the attitude scale. This suggests that staff's expectations of a client's ability to communicate may be improved by a positive attitude towards AAC.

Finally, a Mann-Whitney U test was carried out to identify any significant differences in group scores. The results indicated that there were no significant differences between the scores of nurses and physiotherapists. This suggests that both professions are similarly affected by training and team collaboration experiences and that this impacts upon their attitude towards AAC users.

Implications for the future

In this small scale study results suggest that:

- Functional implementation of an AAC system will be negatively affected by lack of or inadequate training for acute care staff. Further investigation of these implications at macro and micro levels of service delivery would be beneficial to client care.
- The impact of AAC education at an undergraduate or preregistration level for acute care staff requires further exploration.
- SLTs in the acute medical setting might benefit from reviewing their methods of training staff to facilitate AAC use. This may be supported by the application of a model of evaluation like that proposed by Johnson et al (1996).

- Positive AAC training and education experiences for acute care staff has a direct impact upon team collaboration and attitudes towards AAC users. The implication being improved quality of care for the client.

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APPENDIX

Taken from: Johnson, J.; Baumgart, D.; Helmstetter, E. & Curry, C. (1996) Augmenting Basic Communication in Natural Contexts. Hove, Paul Brookes Publishing Company.
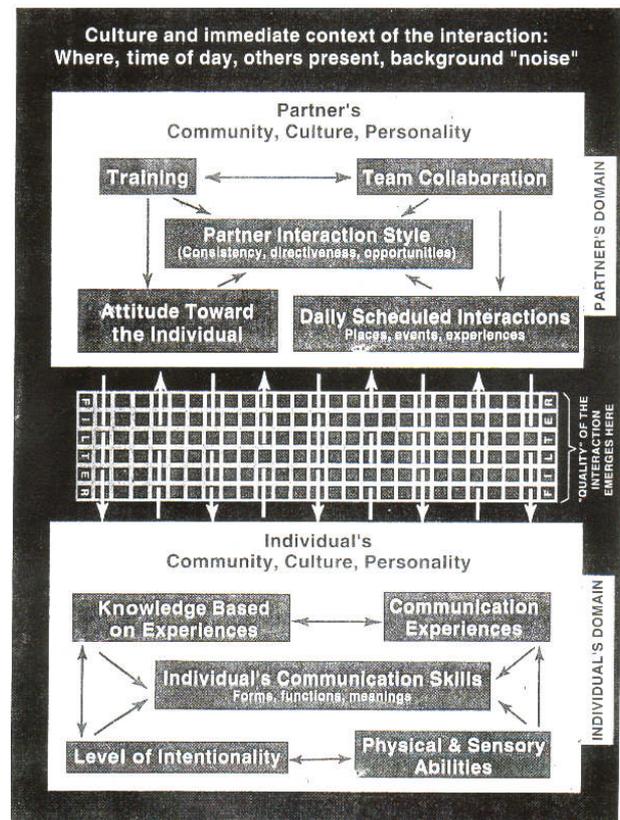
The Sociocommunicative Filter Model (From Johnson, J. 1995)

Why should ambulant children with severe speech and language disorders use VOCAs?

by Liz Royall and Susan Hyde Wright

This paper was presented at the CM2001 National Symposium, Lancaster University, September 2001

An inability to communicate and be understood is immensely frustrating especially for pupils of school age. This paper aims to share our experience of working in a school context with young people under the age of 16 who are ambulant, who may have some speech but are unintelligible to unfamiliar listeners.

We aim to raise some issues about the benefits we have found of using voice output communication aids (VOCAs) with such a client group. We cannot hope to discuss all the associated language problems and issues encountered when working with these youngsters, but we have found that a VOCA can be a useful tool for children with severe and complex communication difficulties without severe motor impairments.

Introduction

Dawn House School (DHS) is an ICAN special school. It caters for day and residential pupils between the ages of 5-16. The school provides education for pupils who primarily present with a severe and complex communication difficulty.

Between 10-15% of the young people now attending Dawn House use VOCAs and over the past decade we have worked with 17 students using VOCAs. In the past VOCAs were not portable or light enough to be easily carried by young children so the development of VOCAs that are compact, modern and light has enabled us to utilise new technologies to support some of the children within the school, home and residential settings.

Characteristics of the Children using VOCAs

Von Tetzchner and Martinsen (2000) state that individuals who need augmentative and alternative communication (AAC) fall into three main groups. They divide users of AAC into:

- an expressive language group
- a supportive language group
- an alternative language group

All children at Dawn House School using voice output aids belong to the first two of these groups. The 'expressive language group' present with a large gap between their understanding of other people's speech and their ability to express themselves through spoken language. Their expressive skills are so impaired that it is likely that AAC will become their primary and permanent system of expression.

The 'supportive language group' falls into two sub groups. Those for whom AAC is used to encourage comprehension and expressive use of language ('developmental group') and those who have learned to speak but who have difficulty making themselves understood ('situational group').

All the children currently using VOCAs are ambulant, although one has additional visual impairment and another has

a hearing impairment. The range of speech difficulties that they present include dysarthria, dyspraxia and combinations of these with additional features of phonological difficulties. None of the children is autistic although all have pragmatic difficulties such as:

- poor skills at initiating social interactions
- poor eye contact
- topic maintenance difficulties
- poor repair strategies

Although all the children are ambulant their underlying motor skills difficulties are frequently impaired. Their difficulties are reflected in:

- faulty motor programming (oral and manual)
- poorly established laterality
- clumsiness
- difficulties with dressing, catching balls, riding bikes
- poor organisational skills
- proprioceptive difficulties
- visual perception difficulties

In our experience it is the severity of the underlying language impairment, not the severity of the speech difficulty, that is the main indicator for prescribing a communication aid. Currently and in the past therapists and teachers have used signs or symbols to establish and develop speech and language skills. Such augmentative systems are undoubtedly powerful tools. However, the new technology offered by a VOCA promises to be a considerable advance in the language development and management of these children.

Key Factors for the Selection of a Device or Programme

At Dawn House School the children carry their aids and they all have personal responsibility for their own machine. No

Key Factors for selection of a device/programme

Electronic	Educational/language
■ Universal (all can understand)	■ Builds up logically
■ Listener's knowledge of the system is not essential	■ Builds up linguistically
■ Compactness	■ Uses pictures or symbols (teaching by association)
■ Added extras e.g. singing, recording	■ Choice of spell, word, sentence
■ Clearer educational need (linkage to ICT)	■ Transfers to the computer for written work (ICT a key area)
■ Range of voices and volume changes	■ Semantic rationale (supports vocabulary storage and retrieval)
■ Using a future technology	■ Range of voices and volume changes
■ Easy to back up/programme (templates easier?)	

Figure 1

child has a helper assigned to them. As the school operates a timetable on similar lines to that of a mainstream school the children carry their devices from room to room. Although the students typically use a combination of communication methods, the choice of which electronic communication aid to use involves finding a best-fit device. The factors we consider are related to both the hardware itself and the educational and language needs of the user (see Figure 1).

Once a VOCA has been given to the young person and functional use is established it is possible to ask and answer the following questions.

Do VOCAs help overall communication skills?

Having a voice output device gives the child a clear strategy or method for gaining attention. Picking up the device or switching it on attracts attention just as well as saying a name or an answer. The volume and the intelligibility of the words 'spoken' by the VOCA reinforce the user's desire to communicate. They make it clear and accessible to the listener regardless of the listener's ability to use the device themselves.

The device will not only support the user's self-belief but also helps in the assessment and appreciation of the child's capability or potential by others. The use of pre-stored sentences can facilitate access to a wider range of speech acts particularly in plenary sessions and group situations. The use of pre-stored sentences enables the user to see themselves as communicators, to take part in classroom activities and demonstrate a greater repertoire of language structures. The devices are empowering both for users and those with whom they interact.

Do VOCAs support the development of clearer speech?

Having access to and being taught how to use a communication aid has promoted and augmented the speech development of some of those users who have limited speech. Just using the aid gives them the sense of being able to communicate more intelligibly. This builds their confidence and self esteem and they begin to regard themselves as effective communicators and with the potential to be intelligible.

We have observed that some of the young users begin to copy, imitate or try to echo the output from their machine by using their own voice. As they learn to listen to the voice output and begin to review and revise its output to match their intent, so they begin to self monitor their own oral output.

Repeated modelling by the communication aid together with their own attempts to match it and associated input from the speech and language therapist have encouraged them to attempt and use a wider range of sounds. Over time, greater accuracy has developed and there has been subsequent improvement of oral motor skills.

Do VOCAs lead to improved language skills?

Some young users in our group have used their communication aid to support and develop their oral language skills. Language skills that were previously outside their repertoire have been achievable with their communication aid. They have expressed

themselves and been understood. As their efforts are recognised the level of expectation with respect to their language output whether oral or through the communication aid has risen.

Within the classroom they are more actively engaged with the language of the learning process. Having access to the vocabulary choices and combinations allows the pupil to re-use those useful /successful word combinations they have been taught on their device.

The users have gained ownership and knowledge of specific language skills such as asking questions, expressing feelings and learning to communicate in a meaningful and generative way. Their aid prompts and reinforces language patterns and word orders.

The grammatical structures and terms that have been taught by the therapist or teacher for use with the communication aid can be revisited in oral language work building upon already established learning and understanding. For example, encouraging the pupil to start with a question word, use the request format "Can I have...", or the more general prompt of 'use a sentence to tell me' are amongst the strategies and prompts we use to expand and build upon their emerging language skills.

Likewise as mapping procedures and semantic rationales are used in teaching the icon location of specific vocabulary or concept items so too have we noted associated development on categorisation skills and awareness of available extension vocabulary. When posed with questions in class such as "Who can tell me another metal/vehicle/object that uses electricity", it is often the AAC user who provides the answer!

Do VOCAs facilitate better access to the curriculum?

The benefits of using a communication aid to support youngsters with emerging language and speech are equally valid in promoting their access to the curriculum. It is at this stage that the child can demonstrate what they know, whether it is through voice output or written work when they are linked up to the computer. Such active participation and engagement in learning cannot be underestimated. This 'hard evidence' can be documented and recorded. This provides the teacher with opportunities to monitor and assess the pupil's learning and in turn set new learning objectives.

The capability of the voice output ensures that the pupil's contribution in class is available to everyone. The listener neither has to be looking at the speaker nor do they have to struggle to 'decode' the utterance. If solely dependent upon just their limited oral/language skills and signing, the recognition, understanding, and awareness of the pupil's contribution by peers and teachers alike can be problematic.

For the teacher it is important that the pupil learns to work and respond independently. Subject specific, key vocabulary can be introduced and incorporated by the teacher as appropriate into the pupil's language and learning targets. The aid also enables the pupil to provide a reliable, repeatable response to tasks set by the teacher. Above all, the user is regarded as a fully participating member of class alongside their peers. The pupil's responses and work can be assessed irrespective of whether it is in class, involves individualised written tasks or homework.

Do VOCAs support literacy development?

We believe that having access to a communication aid and learning how to use one has enhanced literacy learning for this group of users. Increased competence in one area can lead to increased competence in the other. The multi modal approach that is inherently involved, namely the motor programming of icon location to elicit an auditory and correctly spelt visual response, benefits this particular group of children.

The literacy strategy incorporates speaking and listening, guided reading, writing, and talking about words and sounds, spelling and handwriting. For each of these areas the pupil can participate more fully using their communication aid. We use the aid to support word recognition of a core sight vocabulary. The link between automatic word recognition and production becomes stronger. Grammar points such as plurality, word endings, past tense can be taught through the communication aid programme and in turn be clearly signalled by the pupil and checked by the teacher.

We also encourage the children to read silently, as well as prepare their reading/writing in advance of being heard by the teacher. With the aid of headphones they can key in what they have read or want to write and 'say' it back to themselves word by word. This encourages them to self-monitor and listen carefully. They must check the sense of what they have heard. A sense of fluency and coherency is developed which fosters enjoyment and gives more meaning to their work.

Many severely language impaired children have slow language processing, very poor auditory memory skills and word finding difficulties which impact negatively upon their access to literacy. To recall words, sequence ideas and remember information until it is their turn to contribute is a challenge. The communication aid acts as a useful tool or resource. For the purposes of writing we encourage them to key in their initial ideas. Later on the aid acts as a visual and auditory prompt. With support, the pupil's initial ideas can be developed and expanded.

The facility of a spell mode on the communication aid lends itself to the pupil practising spellings, with the additional benefit of auditory feedback; studying word parts, alphabetic names to the corresponding letter are all accessible and reinforcible with the communication aid. Acquisition of literacy skills is vitally important to this group of children and their literacy learning and access has been facilitated and supported by their communication aid.

Do VOCAs lead to higher self-esteem and self-advocacy?

Is implementation different for the children with some intelligible speech?

Successful communication must lead to better self-advocacy and this in turn to improved self-esteem. The main advantage for these children has been the immediate opportunity offered

Figure 2 An Individual Education Plan (IEP)

to them by VOCAs to make their independent contribution to their own progress.

The overall aim of using a VOCA with a child with unintelligible speech is to facilitate a higher level of functional use of language than that which could be achieved with their natural speech. To achieve this it is helpful to examine the differing aspects of planning for more language use. Cottier et al. (Cottier,1997) identify that our roles as a team are to:

- show teachers, assistants, therapists and family members how to promote and refine the systems the child uses
- analyse the classroom (and other) environments to improve participation
- modify tasks and provide resources for as much independence as possible
- set up the VOCA to facilitate participation
- increase classmates' sensitivity and understanding of the communication method
- identify and train communication partners

It is probable that the importance of these roles changes over time.

Practitioners often feel that use of the VOCA is limited because the situations when a user needs the aid are limited. This is true for children with some intelligible speech. These users tend to use a combination of communication methods depending on the situation. So how the VOCA is integrated into communication contexts requires some careful thinking by the team who devise the intervention programme. In a school this will be reflected in the Individual Education Plan (IEP).

An example from an IEP for a VOCA user is shown in Figure 2. The VOCA is used as a tool to achieve three of the aims identified at the user's Annual Review meeting. This IEP demonstrates one approach to developing a higher level of functional communication skills than would have been possible using this child's natural vocal skills.

Many parents, teachers and therapists are concerned that the use of an aid will:
- inhibit the development of speech
- make the child stand out as disabled
- give the impression the child is learning disabled
- make the child feel they cannot communicate
- mean extra unnecessary work
- remove the focus from other skills, e.g. literacy

Many of these are also issues for non-ambulant children. These concerns become less significant once use of an aid is established.

Our observations of the use of VOCAs at Dawn House School are that a VOCA:
- is empowering at all levels
- leads to increased intelligibility of speech
- develops other skills (language and literacy, computer)
- enables the user to be seen as a communicator (wider contact with people, e.g. doctors, new staff, siblings and friends)
- enables the user to be seen as able to learn/contribute to lessons at some level
- increases independence/choices

The main advantage has been the immediate opportunity offered to these children by VOCAs to make their own independent contribution to their progress.

Summary and Conclusion

We have no formal comparative studies to show that using a VOCA has achieved more than using another augmentative system. A formal clinical trial is clearly not possible.

However, our experience over the last ten years at DHS strongly suggests that VOCAs are a powerful additional tool for improving speech and language skills. Some children change devices as their literacy skills develop and we anticipate that some children will gain clear speech and donate their VOCAs to others. There are no other single techniques which immediately give children with severe language impairment the opportunity to cooperate in their own management.

Liz Royall, Speech & Language Therapist
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Essential Publications from Communication Matters

### Speaking Up and Speaking Out! Pathways to Self-Advocacy

This pack is intended for carers, facilitators and others concerned with the advocacy needs of people with severe communication difficulties who need or use AAC. It is useful for staff development, especially for those working with adults. The pack comprises two books. One is a comprehensive and detailed Handbook which includes case stories, discussion points and references. The other is a Practical Guide which summarises the main points of the Handbook in a series of photocopiable overheads, checklists and activities designed to help users build an advocacy plan for individuals.

Price: £30 including p&p available from **Communication Matters**

Michelle Finds a Voice

This book is a story about Michelle, a young adult with disabilities who is unable to speak or communicate effectively. A number of events cause her to feel unhappy and isolated until she and her carers are helped to overcome the communication difficulties. Michelle's story is told through pictures alone to allow each reader to make his or her own interpretation, but there is also text at the back of the book to provide one possible narrative for the pictures. The book was created by Sarah Barnett and Sheila Hollins and published by the Royal College of Psychiatrists, with financial support from Communication Matters.

Price: £10 plus £1.50 p&p from **Communication Matters**
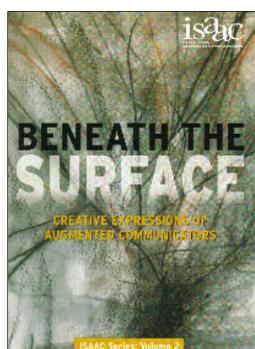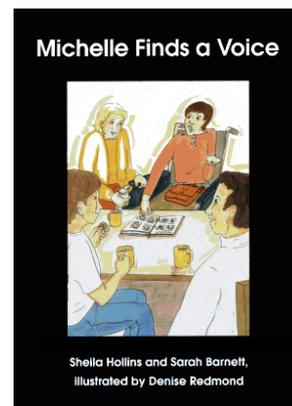
Beneath the Surface

In August 2000, the creative works of 51 authors and artists from around the world were published in one book, Beneath the Surface. What these writers and artists have in common is that they are unable to speak and thus rely on assistive technology to communicate. This book contains 63 paintings, drawings, poetry, stories, plays and essays – many in full-colour – from 51 artists and authors living in 12 countries. Published by ISAAC.

Price: £18 plus £1.50 p&p from **Communication Matters**

Alternatively Speaking

Published three times a year, this eight page newsletter, from Augmentative Communication Inc. in the USA, contains AAC issues and in-depth reports on topics vital to the AAC community. It is written by Michael Williams, who is an AAC user and serves on ISAAC's executive committee.

Augmentative Communication News

Published six times a year by Augmentative Communication Inc. in the USA, each issue contains eight pages of in-depth information on particular topics researched and written by Sarah Blackstone.

Ring **Communication Matters** for an order form.

Communication Without Speech:
Augmentative and Alternative Communication Around the World

This ISAAC book, written by Anne Warrick, is a highly accessible but very comprehensive introduction to augmentative and alternative communication. It contains lots of questions and practical tips such as vocabulary selection, assessment, education and vocational considerations, making communication boards, and includes excellent photographs and illustrations.

Price: £15 plus £1.50 p&p available from **Communication Matters**
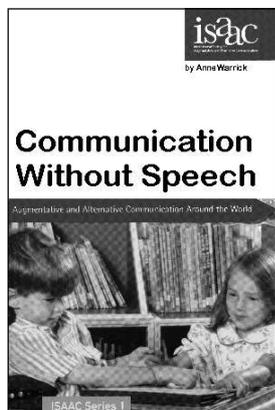
In Other Words (ISAAC video)

This 30 minute awareness raising video was produced in the UK by Caroline and James Gray. It is an excellent introduction to the field of AAC and would be great to show parents and students from a variety of disciplines, as well as to staff new to AAC.

Price: £10 to CM members (otherwise £15) including p&p
only available from ACE Centre (ring 01865 759800)
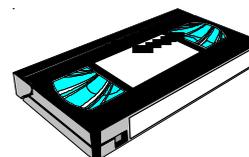
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