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REGULAR COLUMNS

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REGULAR COLUMNS

Cover: Sophie McMullen bearing the Olympic Torch (page 25)
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Work Experience with Sharon Hodgson MP and Sarah Teather MP

NADIA CLARKE

My name is Nadia Clarke, I am 20 years old, and I am disabled and I am also profoundly Deaf. Because of my disabilities I communicate using both a computer called a DynaVox, and British Sign Language. I have a very strong view about the rights of disabled people like myself and have done a lot of campaigning about our entitlement to equal rights over the years. I believe that disabled people have the right to have a voice as much as non-disabled people and I want to eliminate all the barriers that disabled people face each and every day of their lives. I am hoping to go to University in the next few years, as I want to study Disability or Special Educational Need and Inclusion because my ambition is to advise the Government on Disability issues as a young Disabled woman in the future.

Because of my ambition I decided to contact the Government to see if I could organise some work experience for myself in this field. After months of planning I finally had a two day visit planned for the end of May this year. This is my experience:

On Tuesday 22nd May 2012 I set off excitedly to London, where I would spend the next two days with Sharon Hodgson, MP Shadow Minister of Children and Families as part of my work experience. I arrived in London and straight away was escorted to the House of Commons, a big traditional building in the heart of London. I was taken to watch a meeting taking place between Sharon Hodgson and Jean Gross. They were discussing Augmentative and Alternative Communication (AAC), which I found extremely interesting and informative.

When the meeting came to an end, I was greeted by Sharon Hodgson in person, and we went for lunch inside the House of Commons. I had a chicken sandwich, which was delicious, and complemented the great day I was already having. After lunch, Sharon took me to the Houses of Parliament, which was truly awesome! The old building was beautiful, and I felt privileged to see it. Sharon then took me outside where we sat near a river in the sun, ready for me to interview her. I couldn't have asked for a better place to be holding the interview.

The questions and answers were as follows:

Nadia: ***Hi, how are you?***

Sharon: Hi Nadia, I am very well, it's a beautiful day and we are sat on the Terrace at the House of Commons. Perfect!

Nadia: ***How long have you worked as Shadow Minister of Children and Families?***

Sharon: It's coming up to two years.

Nadia: ***What do you like about your job?***

Sharon: Oh gosh, I think for me it's the best job in the whole of Parliament and within the Government portfolios that you can have. My job covers Early Years, Children with Special Educational Needs, Sure Start, Child poverty, Young carers, school food and children's rights. So for me it's one of the most interesting and most important areas of Government policy.

Nadia: ***Interesting! Why do you choose to work in the Labour Party?***

Sharon: I couldn't imagine being a politician for any other party. Labour is the party I feel the most affinity with; Labour values are my values – the values of fairness, equality, social justice and the fact that everybody should be able to achieve their full potential and be supported. The fact that where and which family you were born into should not determine your life, outcomes and the chances that everyone should have – and have an equal chance – and to go on and achieve and to live full and fulfilling lives. For me, the best party for this is the Labour party.

Nadia with Sharon Hodgson MP

Nadia: *This is really fantastic.*

Sharon: Thank you.

Nadia: ***I would like to be an advisor on behalf of the Labour party on Disability and Communication issues.***

Sharon: Fantastic, that would be great, you would be a great Advisor.

Nadia: ***Do you think in the future you can see me as an Advisor, if so when can I start?***

[Sharon, Joel (Sharon's PA) and Cheryl (Nadia's PA): laugh at Nadia's sense of humour!]

Sharon: Yes I certainly can see you as an Advisor, you're so good at doing that role anyway. When you gave evidence to the SEN hearing on Labour party policy, you came along and gave your advice, that's what an Advisor does. You're going to become more knowledgeable in the future, especially after you have been to America and you have found out more about AAC devices.

Politicians, such as myself, are always looking to experts in that field, such as yourself. I mean you can really talk knowledgeably from your experience around the issues that affect, children and adults with disabilities.

And, I think the second part of the question asked, how can you get a job? Well you've got to apply for one, but with your skills everybody will be keen to have you on board.

Nadia: ***I want to help create new policies for disabled people and those with communication impairments.***

Sharon: Definitely. The work that you're doing already, to bring this to the attention of the Politicians such as myself and you're seeing Sarah Teather tomorrow, is a key part of becoming a campaigner.

I can't imagine the barriers you have to face in your day to day life; you need to campaign to let people like us know, and that's what you're doing. You're here and you're doing it very well.

Nadia: ***What are your views about withdrawal of support staff for Deaf students in the exam room?***

Sharon: I just think that it can't be allowed to become the case because, if we really believe that all children can achieve their full potential, how can you withdraw the support that acts to level the 'playing field' and to give children with disabilities – in this case deaf children – a chance to compete and achieve on the same level as non-disabled children? No, I think that's definitely an area of policy that we need to look at strongly.

Nadia: ***Would you like to come and take part in 1Voice this September? It is a charity supporting children and young people who use communication aids.***

Sharon: I think we looked at dates for that and I don't think I am available. I would have done if I could. So if you can ask again for a future date, I would definitely try and get the date in my diary early and protect it, absolutely, yes. But I think we have looked at the date for this year.

Nadia: ***Don't worry.***

Sharon: [smiles]

Nadia: ***I have been going for 13 years because my Mum set it up. It has made a big difference to my life.***

Sharon: Oh, wow, so your Mum set it up! Very good, you must be very proud of your Mum.

Nadia: [agrees] ***She is! I will tell my Mum.***

Nadia: ***I will be famous one day and you will have wished that I was part of your team.***

[Sharon, Joel and Cheryl: laugh at Nadia's humour]

Sharon: I think you are a part of my team already, and I'm sure you will be famous one day, I think you're already famous now, I do hope that you will advise me now even in a voluntary capacity and hopefully one day in the future you might make it your job.

Nadia: ***Do you like working with Joel, and is he any good?***

[Sharon and Joel: laugh out loud]

Sharon: Joel is fantastic, he is an intelligent, capable young man who is an absolute joy to have around, he's very like you Nadia, he's happy to be around and full of joy and lifts your spirits, very similar to you Nadia. But, trouble (Sharon signs 'trouble' to Nadia) – I have to keep an eye on him!

Nadia: ***Is there anything you would like now to ask me?***

Sharon: Oh gosh! So what would your dream job be?

Nadia: ***My dream is to work, I want to be a Government Advisor and change policy around Disability Rights and Education.***

Sharon: Fantastic! I think that's a really amazing aspiration for a 20 year old to have. I strongly believe that young people should have dreams and set out each day to do something to take you closer to fulfilling that dream and to reach that goal. Some of the young people today do not have that; they think "what chances am I going to have?" and they don't even have the aspiration.

I think what is amazing about what you're doing is that you not only have got the aspiration and the dream, you are doing something about chasing it, and here you are today: your second time in Parliament, you even gave evidence to the SEN review, you're here shadowing me, tomorrow you will be with Sarah Teather, so already you are doing so much to try and make that dream a reality and I know you will do it.

Nadia: ***First, I want to go to University, but I don't know what's happening because it was a really hard exam, English and barrier.***

(I find English really difficult because I am deaf. I found it hard to read and understand my English Level 1 exams so I failed. Now I can't go to University because I kept failing my English. This is a barrier for deaf people. Universities don't understand about deaf issues. I am now waiting until next year when I hope to try to get into University again as I will be 21 and won't need English as I will be classed as a mature student. I also want to find a University that has an inclusive attitude.)

Sharon: So you took an exam in English, and it was really quite difficult, I think I was talking to Cheryl about that before, but I think it is only a small hurdle.

Nadia: ***Thank you.***

Sharon: No, thank YOU!

After I had finished interviewing Sharon Hodgson, I went to look inside the Houses of Parliament. I kept stopping and driving my wheelchair really slowly because it was so awesome inside and I just kept thinking "Wow!!" We then moved on to watch the Deputy Prime Minister's questions – I thought it was brilliant. I left early and shadowed Sharon Hodgson to a meeting about learning disability. I loved meeting those involved as I enjoy meeting new people.

Later in the day I had an escorted tour around the Speaker's house. This was amazing because I got to see the bedroom and living room in the Houses of Parliament where Kings and Queens of our history would have stayed. Unfortunately I was unable to meet Mr Speaker in person due to him having urgent business to attend to. Instead I meet Mr Speaker's Personal Assistant, who organises Mr Speaker's day and co-ordinates his business in the Houses of Parliament.

I went on to the House of Commons because it was break time there, so I was able to go in and meet up with Sharon Hodgson and her boss Stephen Twigg MP, who is the Shadow Education Secretary. We discussed the day and talked about AAC and the possible withdrawal of support for AAC users in examinations. I especially spoke about Mainstream Schools, and Special Schools, and children with disabilities and the barriers they can face in education. I could see that Stephen Twigg was impressed with my knowledge and expertise.

The day concluded on the terraces of Parliament. As the sun set over the Thames, a small group of us sat and reflected over the day's events. Sharon Hodgson bought drinks and asked if I would like to participate in future policy reviews. I didn't need to be asked twice, I was ecstatic! Sharon's genuine warmth was heart-felt and I could see she really wanted to learn about all my concerns and ideas around AAC. I know that my future in politics is going to happen, and probably sooner rather than later, as I now know that I don't need a degree as I have the life experience to become a leader in disabilities that no degree can give me.

On Wednesday 23 May I was so elated over the previous day's events that it somehow overshadowed what was going to happen that day. Nevertheless, I was ready and waiting for a car from Sarah Teather MP's office to collect me and take me to Alfred Salter Primary School. It was today that I was to shadow the MP for Children and Families around a SEN primary school, to observe visits and discussions with regard to the school and its future works.

Sarah Teather was unavoidably detained in another meeting which presented me with a chance to meet with the School Governors, staff and the children. I had an hour of talking and exchanging views with regards to disabilities, social welfare and most importantly the great news that a Year 3 student was about to discover the world of AAC. Never before had the school experienced a student with an AAC before, and they showed so much interest in how I used my device that I was really pleased to have been a positive role model for this pupil and the school. The Headteacher went on to invite me to continue to be a role model for the Y3 student in the new term, which I accepted without hesitation.

Sarah Teather then arrived, there was a short introduction to everyone present, and she was then whisked away to look around the school as her time is so precious. She did acknowledge me as her work experience, but due to the size of the classrooms and accessibility of the corridors, it was hard to share the same room and listen to her conversations. Nevertheless, my own personal experience was unforgettable. I will take memories of it away with me and cherish them forever.

After a brief meeting, Sarah Teather's Personal Assistant asked if I could have the interview, which I had already prepared, in the back of a taxi as she had other meetings to attend. Cheryl, my own personal assistant, advised that this would not be possible due to accessibility and the need for my interpreter to be present. Basically there was a lack of room in a London black cab.

Back at the Department of Education I was rapidly sped along to the next meeting, not knowing what to expect. This meeting was arranged by David Chater, Sarah's co-ordinator. During the meeting I sat at the side of a boardroom table, as the panel discussed the issues around Child Poverty, which was due for debate in the House of Commons in the next coming weeks. I was in awe of the conversation. It was highly exciting watching an assistant advise Sarah on an issue, then another objecting, and stating other issues that should be raised. Even though I did feel that most of the conversation went over my head a bit, the sheer excitement of being involved was overwhelming.

When the meeting came to a close I asked Sarah if I could interview her, which she obliged as she had some flexibility that day. The interview questions and answers were as follows:

Nadia: ***Hi***

Sarah: Hello

Nadia: ***How are you?***

Sarah: I am good thank you. It's been a busy morning hasn't it?

Nadia: ***How long have you worked as the Minister of Children and Families?***

Sarah: For just over two years. We had the General Election in May 2010, and the Coalition Government was formed a week later, and I was appointed on the Friday, so just over two years now.

Nadia: ***What do you like about your job?***

Sarah: I like lots of things about my job, but most of all I get an opportunity to make a difference. I've been an MP for quite a long time since September 2003, so nearly nine years. You can do a lot as a 'back bench' MP and lots in opposition but if you're in Government you can actually get to make decisions and I particularly like the work around SEN and disability and we're trying to really change the system at the moment.

Nadia: ***Why did you choose to work in the Conservative Government?***

Sarah: Well, it's not a Conservative Government, it's a Coalition Government, and just after the election day at the start of May 2010, no party won the overall majority, so the Conservatives could not have governed on their own, Labour could not have governed on their own, and we talked to both Labour and the Conservatives and the only way actually to form a government was with the Conservatives, there weren't enough MPs if we joined with Labour to make a Government, but the Conservatives and Liberal Democrats negotiated to have a Coalition agreement that included the best of our manifesto and the best of their manifesto, so that was the best way in which we were able to get the things we wanted to do and when we were on opposition in active Government.

Nadia: ***In the future, what do you plan to do to support Disability Rights for Children and Young People?***

Sarah: Well, we are rolling out a big reform at the moment for Special Educational Needs and Disabilities, and what we are trying to do is to make the education system work much better and make sure children get the support they need early enough to make sure they can progress and develop. We know that lots of children don't get access to Speech and Language Therapy, for example, when they need it. They struggle to get the right wheelchair as they struggle to get access to the schools they want to go to and so we are trying to improve the system so that all children get much better care at an early stage and so that they get a better chance to fulfil their potential, really, and be the best they can be.

Nadia: ***Do you think that creating policies for Disabled young people you should have a Disabled advisor like me, helping to inform you?***

Sarah: Well, we involve lots of Disabled young people who help in developing our policies, I don't have a disabled advisor as such, but the Council for Disabled People [Office for Disability Issues] have an Ambassador's scheme, and they've consulted heavily on the proposals that we are making and I've got to meet the young Ambassadors on different occasions to check through what they think and make sure we are doing everything in the right way, and I think the important thing is that we involve a range of children with Disabilities and SEN with different needs and we consult as many different people as possible. Just having one advisor, I am not sure it's quite enough, which isn't to say that I wouldn't recommend your help.

Nadia: ***How can you support families to feel more positive about their lives?***

Sarah: Well, some of it is making sure they get the help they need, you know, if you've been fighting the system to get your child into the right high school or a wheelchair, or to get a bit of extra help for your child in school or for a break, then it's no wonder you feel very negative. I think for a lot of families, they've basically fought a war with Councils and the Health Service for a really long time to get what they want, and it takes its toll on families.

Nadia: ***Thank you.***

Sarah: Thank you.

The morning concluded with a late lunch, after which I was exhausted, so we said our goodbyes and went our separate ways.

I gained so much knowledge and gained a wealth of experience over those two days. It was a work experience that I will never forget and that I will take with me on my way as I build a career around Leadership and AAC. ✱

Nadia Clarke

My Communication Story From 1981 to 2012

BARRY SMITH
Email: bsbsmith40@googlemail.com

WHO I AM

I am Barry Smith and I have been living with Cerebral Palsy since I were born 33 years ago. Since I were three years old I have been using different communication aids to help me to get my voice across so everybody knows what am saying.

When I were three years old my speech therapist at that time, started teaching me how to sign by using my hands. After a few weeks of this the speech therapists found this wasn't working for me. This were down to the jumping movements that are a part of me having Cerebral Palsy. So the speech therapist went back to her drawing board. Then she tried me with a Bliss Board which was like a bit of card with lot of words on it. Under each word there was a symbol so I can understand what the word is.

A FEW WEEKS

After a few weeks of trying this the speech therapist told my parents she was so happy I was picking it up so well. Then the speech therapist told them she were trying to teach a girl about the same age as me. She asked them "Would you mind if I take Barry to meet her, because she has not seen anybody using a Bliss board. My plan is if she sees Barry with his board, well she might start doing this as well." My parents were happy for me to do this.

The day I met the girl both of us went down beside a river sitting at a table, with both our Bliss boards on it. When we were both sitting at the table I point to my board, then I take her, hand to let her see she were able do the same as me. By the time I leave her she were happy using her Bliss Board.

CAN'T WRITE WITH A PEN

When I went to school I couldn't write with a pen and because of this I use a Lightwriter®. I remember what my first one looked like – it was bigger and had a printer – the paper was rolled up like a till roll. I used this on and off for a few years but was still using the Bliss board at the same time, when people can't understand my speech.

MY LAST YEAR OF SCHOOL

When I were in my last year at school I went for a test at a college that I wanted go to, after I leave school. The staff told me if I wanted to do a course at the college, I better get a high tech Communication Aid. So I spoke to my school's speech therapist, and afterwards she sent a letter to Technology for the Communication Impaired (SCTCI), to ask for their help.

A few weeks later they came to meet us at my school, bringing with them three different types of communication aids for me to try and see which one I liked. I preferred the Lightwriter® as I felt it was a nice size for me. I was asked if I wanted it mounted onto my chair – I said No thank you. I then got that Lightwriter® for a trial loan which gave me time to get used to it.

AFTER I LEAVE SCHOOL IN 1997

I got a new speech therapist in North Ayrshire who sorted me out with a Lightwriter and a bag also. Then she also asked me would you like me to look into getting you a mount to put it onto your chair. NO THANKS, I said. At college I was a part of two courses that were great. After I had been at college for a few months my speech therapist came up to see me, and to give me a new SL35. The SL35 had a deep Keyguard. The speech therapist checked with me that I was happy not having a mount? A couple of months went by then, I got talked into getting a mount by my college.

2001 TO 2005

After I leave college I went and stayed with my Dad for a few years. Then my dad take ill. After one year I move into Red Cross House. In 2002 I was told


Mind Express 4
WORDS
Up

about a new project just started called Gateways, for people aged between 16 and 25 years old. I ask, “Could I be a part of this?” Yes, I was told.

From doing this I got supported to a course called Partners and Poll making. From doing this I found out about my rights as a disability person. After I did this course I tried to set up a network support group, this was to help me to make dream come true. I say I want to get my own house. I started looking into how to get a house.

One day at college I remember one of the staff were reading Communication Matters journal to us. Then they saw an ad looking for Lightwriter users to go to Communication Matters ’98 conference. So me being me, I write to win two free places for myself and a support worker to go to it? When I got word back about this, it were great news – I was to go! So me and a support worker went down for the conference. I remember I hear a lady speak who were just back from ISAAC. I thought into myself, one day I would like do that myself.

2006

In April 2006 I got a two bedroom house – one thing I needed. It needed door access because I couldn’t open my door. My mum came and lived with me in till my door was fixed.

Then about June 2007 I was bothered by some young boys who were trying to act big, so I told the police about it, with my SL35.

2008

In 2008 I found out that Communication Matters were looking for AAC users to tell their story at their conference later that same year. So I send in a paper “About my life story being a AAC user”. When I got word back about it, I remember all I could think about was, where could I get the funding to pay for this?

So after I speak to my speech therapist about this. We came up with ideas and I asked Toby Churchill could they support me? I got word back to tell me they were happy to do this for me. Over the few months was time to programme my talk into the SL35 with the support of my speech therapist.

In September of ’08, with a support worker, I went down to Leicester where the Communication Matters conference were on. I remember meeting a lot of people who were like me. I met the people who work for Toby Churchill, as well. On their stand they were showing the new make of Lightwriter, which was the SL40. Their people gave me a try; you could text with it. I sent my mum a text – my mum couldn’t believe it were me because she knew I couldn’t send texts because of my hands.

After I came home I told my speech therapist about this. She asked me, “Do you think it would be any good for you?” I told her what I was told about it, that you could save up to five books, and it won’t break. Then she told me she would look into getting some funding to get me one.

2009

One day in February 2009 I got a telephone call from my speech therapist to ask me, could we met up sometime? I said Yes but I had no idea what this was about. When we met up, before she could tell me why wanted to see me, for I asked her what was happening about me getting an SL40? She started to laugh and went into her bag and took out a SL40.

Then I put a paper into speak at Communication Matters ’09 called “How fast the world has moved on”.

When I went to the conference, I heard a lady talking. She told everybody to go for their Dream no matter how small or big. My dream was to speak at the ISAAC conference in Barcelona the next year. So after I came home I started to think about writing a paper to speak at the ISAAC conference.

2010

At the start of 2010, all I could think about was how I could find the funding for myself and two supports workers to go with me, to do this. Just before I gave up hope, and when I was about to give up, Linda my speech therapist told me about Augmentative Communication in Practice: Scotland who might fund a person who uses AAC. I got word back, it was good. After getting things planned for us to go, July came and me and two support workers went over and stayed for a week.

The first workshop I take part in was over two days. A band was set up, where I was playing the Keyboards. It was good because it were different AAC users, from all around the world. This workshop were over two days before the main conference opened. At the opening of the main conference I and the band had a bit to play. The Queen of Spain was there. After the opening there were workshops on. Many people using augmentative communication like me were there. We AAC users tried to go to each others’ sessions.

2011

In March of 2011 I went to a Communication Forum Scotland meeting that gave me a different way of looking at communication. It was about people not AAC but with all different kinds of communication, and what they were finding, all around Scotland. It was a good thing to be made aware of, but I knew it were not my type of meeting. I told them in a nice way and wishing them well in what they were trying to do.

In April of that year I was asked for feedback about what I think of using the new SL40+. One thing is different about this; it is a mobile telephone as well. At first when I got it felt so good. Just before this, I put in my paper to Communication Matters, about my time at ISAAC in 2010. Then Linda my speech therapist asked me, would I like to do a talk at Communication Matters with her? I told her I would love to. When we went down to Communication Matters I did my ISAAC talk, I felt liked crying when I were telling my story, because when I looked around the room when I was speaking, some people who were at ISAAC 2010 were here at CM2011 too. I felt this was so nice. The next day Linda and I did our talk, which was great too.

About a few weeks later a lady came to see me at my house, to tell me about a project called “Inclusive Communication in Scotland,” and to ask for me to help out with the project. The project outline was: To make sure everybody can understand all information given to them about health and other things, like from the council. And to make sure everywhere in the community is accessible for people with communication support needs, like ramps for people in wheelchairs. Remembering some people can't see well, or hear well, or understand and speak well, so they might need a little bit of more time to understand and be understood.

I was asked to talk about Inclusive Communication at some meetings around Scotland. At the end we went to the Scotland Government in Holyrood to hand into what we had found out, together. I tried to get to ISAAC 2012, but there was no funding.

2022

In ten years time, by the year 2022, I think communication aids would stopped moved on as fast because people would not have the money, It might be in the year 2013 that the UK government stop giving money.

Thank you all for reading this. Bye. ✱

Barry Smith

Making the Transition from Paper Based Symbol Resources to Interactive Teaching Resources

A school's experience

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This article is about the implementation of a new symbol software program (Boardmaker Studio) into the school environment. It follows the school's journey from trial to implementation and discusses the reality of interactive software in a busy classroom setting, for children with special educational needs.

BACKGROUND

In December 2010, newly employed at a Special School in Somerset, I set about evaluating the school's existing symbol software and looking at alternative software with the aim of improving interaction, engagement and communication in the classroom setting.

Selworthy School is a co-educational special school for children and young people with learning difficulties aged 2 -19. It is a specialist school for cognition and learning and is the holder of two ICT excellence awards.

There are currently 84 students on the register, 19 teachers and 60 teaching assistants. Approximately 40% of the students have severe learning difficulties (SLD), 30% autistic spectrum disorders (ASD) and 30% profound and multiple learning difficulties (PMLD). In addition to this, there are a small number of children with moderate learning difficulties (MLD).

RATIONALE

The symbol software in use at Selworthy school at the time was solely used for making paper based resources and the school had produced a variety of good quality paper resources to meet the needs of its very complex students. Visual timetables, communication books, social stories, symbol support for reviews and student council meetings and a very extensive range of information booklets (E-safety, About my Body, My Feelings) were just a few of the resources already in place. Indeed, Selworthy had developed some excellent resources for providing information but we began to ask ourselves whether it really was accessible and whether we were doing enough to help our young people express their ideas and opinions? Was there a better, more inclusive way of doing this?

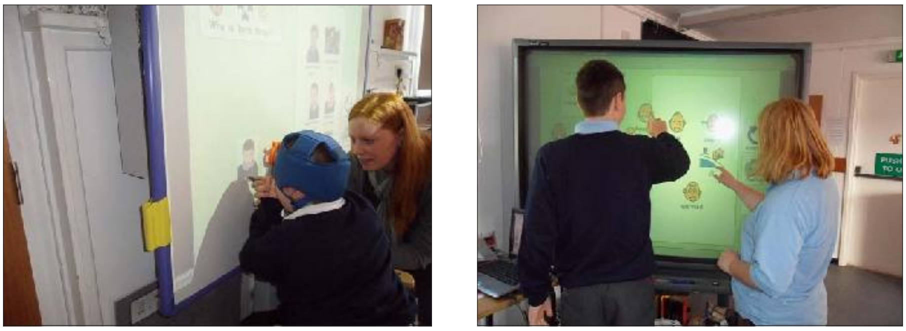
It was reported that the symbol software in place was unreliable and although interactive add-ons were available, it was apparent that they were not in use. The school recognised that there may be benefits to interactive symbol teaching resources that had yet to be explored and more importantly, there remained a number of students who continued to find paper based resources difficult to access and engage with. The school was keen to engage with these 'difficult to reach' students.

We were very aware that introducing new software into a busy school was not going to be easy and that there would be teachers who felt they simply did not have the time to take it on board. In this current financial climate, there is no time for software that it is not user friendly and reliable. We were determined that this would not be a piece of software that sits on the shelf. Our aim was that the software would be integral to cognition and learning and also to the development of a whole range of associated skills.

TRIALS

Following extensive trials with two of the major symbol software packages available at the time, a list of key requirements was generated:

1. Reliability and ease of use.
2. Interactive elements.



Boardmaker Studio in use at Selworthy School

3. Ability to produce paper based resources.
4. Versatile enough to the meet abilities ranging from PMLD to MLD.

Following this trial, the decision was taken to implement Boardmaker Studio and in March 2011, twenty licences were purchased. The very impressive interactive elements of Studio were central to this decision. We concluded that this was the most versatile symbol software package on the market and the school's senior management team and governors were all positive about the financial commitment we were making in purchasing this product.

IMPLEMENTATION

Having made the decision that Studio was the right product for us, the most difficult part was still ahead of us – implementation. Enabling the staff group to use the new software quickly and efficiently was the first challenge. The strategy for the implementation of Studio was based on the premise that the software was primarily intended for increasing interaction, engagement and learning in the classroom setting. This meant teaching the teachers to use the software first.

In my experience, the majority of symbol resources are made by a speech and language therapist or an assistant and are used as paper based resources to support a child's learning. The majority of these resources are used for children who are not literate. The making of such resources for classrooms is often a time intensive activity and I cannot be the only person who spends hours making individual resources, goes into a classroom following the lesson and picks up the symbol resource wondering exactly how much it was used and to what effect?

The major difference in the new software was that it was intended as a teaching resource, made by teachers, for teachers, to support and increase whole class learning. Therefore, the training I first needed to do was with the teaching staff – not the support staff.

This was a radical change in approach for Selworthy School, but I felt it was critical to the success of the use of symbols in the classroom setting. The school is after all, a special school and every child in every classroom needs additional support with their learning, not just those struggling with literacy.

So, our focus changed. It is no longer about making paper based resources for individuals who are not literate. It is about supporting a whole school environment with 21st Century interactive technology to meet the very individual needs of every student.

The implementation strategy was therefore to load Studio onto teachers' laptops and initial training for the teaching staff took place. The training varied from twenty minutes to one hour and the majority of the staff found the software reasonably intuitive. The major focus of the training was the interactive content of the software, enabling teachers to confidently use the software in their classroom setting.

The extensive range of pre-made templates and activities meets the needs of our very diverse school population and is enabling our teachers to deliver lessons using interactive symbol based technology. Subsequent training for teaching assistants has concentrated on the production of paper based resources which continue to be used to support lessons in the more traditional way.

Mayer-Johnson helped us produce a template for registration and every child now has the opportunity to use the interactive white board independently to register themselves in on a daily basis. They are able to tell us whether they are having sandwiches or a school dinner and to comment on the weather, what date it is and how they feel today.

We continue to be supported by DynaVox Mayer-Johnson and have a three hour advanced training session planned for our teaching staff at the end of January. This extended training period is only possible because of the continuing commitment and support from the senior management team as the level of timetable adjustments required for this is not insignificant.

OUTCOMES

Taking a fresh look at the software in use at school was a good start at looking at how we might enhance interaction, engagement and learning in our classrooms and has given us the opportunity to re-think how we use symbols to support our learners and whether we could improve our practice in this area.

The school was keen to get the best for the students and equally important, for teachers to have reliable 21st Century software. At Selworthy School, as with many specialist schools, concentration and learning is often fleeting therefore opportunities cannot be missed because the technology lets you down. Classrooms can be volatile places and the learning opportunities need to be maximised before interest is lost

In changing symbol software packages, Selworthy School has put the needs of its pupils first. It has resisted the temptation to stick with what it knows and tried to take on board the changing learning styles and needs of its 21st Century pupil population. We are surrounded by touch screen and interactive technology in our daily lives, surely our teaching methods should reflect this?

This one software program produces both paper based and interactive activities to meet the varying needs of the pupils. Technology has opened up a world of possibilities. Interactive whiteboards are being used creatively by some teachers but there is still much more to be achieved and the benefits of interactive symbols teaching methods have yet to be fully explored.

MOVING ON

We have come a long way from cutting and sticking, to the use of paper based symbol resources that are now reasonably common practice in the classroom setting. But this is only one way of facilitating learning and its roots are based in the 20th century.

We now have opportunities to extend cognition and learning through 21st Century technologies that are more accessible and better encourage creativity and choice making. ✱

Laila Emms
Communication Specialist

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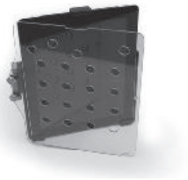

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Group Work to Promote Communication and Literacy

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Our presentation at the 2011 Communication Matters National Conference focused on an unusual group run in Oak Field special school which provides all-years education to 150 children ranging from those with severe learning disabilities to those with PMLD.

One of the authors is a full-time staff member in the school, with her own class and additional responsibility for communication and information technology across the school. The second author is a university lecturer and researcher who had been paying regular visits to the school for several years.

THE GROUP

The group of five students was set up as an 'experiment' with multiple aims. We needed to find a way to see a larger number of students on a regular basis. Some of the students had begun to respond to adults in individual sessions and we wanted to encourage more communication between peers. We also wondered whether the children who were more responsive would encourage the participation of others.

Additionally, it was important to find a means of training staff to use successful techniques and since many of these children could be very challenging to work with, we aimed to provide support to staff. The group objectives were to promote student engagement in a range of social activities, to promote independent pointing as a means of expression and to make communication and literacy activities fun, for both students and staff.

There was an underpinning philosophy for the group, developed through years of research and practice. Since one of our objectives was to promote and support engagement we rewarded all participation, even in instances where it was unclear whether the student intended to participate or had acted randomly.

This was further encouraged by using 'no fail' activities, such as giving a pupil a range of resources to make a selection from, any of which would constitute an appropriate answer. Additionally, although we were particularly promoting the use of pointing, we encouraged students to participate through any means and so took facial expression, body movement, gesture and eye-gaze as responses. Another aspect that later appeared to be important was the extent to which we persisted in including students who may have only been responding randomly, while treating as many of their responses as deliberate as we could.

A further aspect of the philosophy was to provide a range of materials for the students to respond to, such as the usual symbols and pictures, and also letters, words and numbers. Whatever the material being used, the member of staff working with the student would tell them several times what it was.

STRUCTURE OF THE SESSION

Sessions lasted one hour and followed a consistent format. Each student was accompanied by a member of staff from their class. Since this was a social group, and none of the children typically appeared to be aware of their peers, each group started with a greeting. Three button voice recorders were programmed with different styles of greetings. Each child was encouraged or supported to press each button to hear the greetings and then to choose the one they wanted to use.

The buttons were labelled with numbers on Post-it notes so students could either directly press the button they wanted, or if access to this was difficult they could select a number on a Post-it removed from the buttons and placed wide apart. Obviously in this activity there was no 'correct' response and any indication of choice by the student was accepted as the way they wanted to greet the group.

Initially, the second activity of each session involved projecting a news clip from the CBBC website onto a wall, followed by asking some questions about what the students had viewed. Some pupils could be seen to look at the clips while others appeared unaware. Students were given a small number of words or symbols with which to respond and even the pupils who did not appear to watch would sometimes consistently answer correctly.

After a term of this approach a new range of games were introduced, modelled around the television programmes *Countdown* and *Play Your Cards Right*. Students were required to identify the correct letter or playing card within the time limit provided by the soundtrack.

Another set of activities revolved around sentence completion activities to create stories and poems. These were designed to make sense no matter what selection the student made and so that the same materials could produce different outcomes. Such tasks included writing a poem using nouns and adjectives and compiling an original version of *The Twelve Days of Christmas*. As the year progressed, other more complex tasks were included such as question and answer sessions between students, party planning and 'My ideal job' questionnaires.

Students were awarded a large coloured star for each time they participated and at the end of the session stars were counted and a winner congratulated. This was discontinued half way through the first term as it became apparent that students were self-motivated to participate.

INDIVIDUAL OUTCOMES

Nyron was 14 when the group started and had previously been seen individually. Some years before, he had used Facilitated Communication and had pointed to spell words and convey meaning. However, following a serious illness he had been unwilling to point at all and in the group showed a preference for using a pencil.

Although he did not appear to write anything meaningful, he could mark the paper and in this way select an option. At first most of his responses appeared to be random but he gradually came to discriminate more clearly and over time began to participate by independently selecting words and pictures. For Nyron the outcome was more independent pointing and a more constructive attitude to participation.

Lenny has a diagnosis of autism and was aged 13 when the group started. He had no clear method of communication and we had not worked with him before. It was reported, by his teaching assistant, that he was able to follow basic familiar instructions if she sat alongside him, gave a simple instruction and waited for a response. However he did not have any reliable system of communication. In group sessions Lenny was one of the first students to start to respond appropriately by independently selecting from a small range of options, despite appearing not to look directly at choices.

Commencing in the group, and through continued work in class between sessions, Lenny further developed his independent communication and started to use Facilitated Communication to express himself more fully, often giving verifiable information, such as what he had done at the weekend, to staff. Once Lenny had started to point and communicate consistently, information on supporting his communication was relayed to his family.

Anita was the most obviously expressive member of the group. She was 14 at the start, with a diagnosis of cerebral palsy, but despite her willingness to attempt to communicate, no clear method had been established with her. Her responses tended to be inconsistent and it was not clear how much she could understand. The routine of the group appeared to help her, and she seemed very motivated to try to compete with the others.

We had not worked with her before and focused on establishing a consistent motor pattern that she could practice. Her hand was placed in the same position at the start of each point and she was helped to wait before moving to give herself time to look and select. She started to be able to order words to create a sentence and provide information about herself. The speech and language therapist was asked to see Anita and provided a DynaVox which she now uses independently to select words and express herself. Although some of the work on learning to use the technology has occurred outside group sessions, it was her motivation to participate and her success with particular activities that raised staff expectations of her ability to communicate.

Natalie was well known to the authors who had been supporting her with her use of Facilitated Communication for five years. Although at times able to communicate effectively, she was generally slow to respond and had a tendency to giggle and be unable to proceed when she was the focus of adult attention. Work had focused on the development of independent pointing without much success prior to the group. In group activities she continued to frequently be slow to respond but the element of peer competition, and not being the sole focus of attention appeared to help her to concentrate better and she has been able to make independent selections more than previously, now regularly selecting independently from a choice of two or three.

Christina was aged 12 and presented with autistic features and challenging behaviour. We had not worked with her previously and this was the student who stood out in the group as the person who appeared to be least aware of what was happening around her and who visitors commented was not getting anything from her attendance. She would reach for anything put in front of her and put it in her mouth.

Over time it was discovered that she responded very well to structure and could point when taken through a serious of steps reminding her to hold her hand still while she looked, and then point. Towards the end of the first term, Christina appeared to be more aware of the routine and respond to expectations. She started to press the buttons on the recorders to say "hello" and participated increasingly in all the activities. After many months she started to spell words by putting Post-it notes into the right order and independently spelled 'A d e' when asked to choose a role model in one of the sessions (Ade Adepitan).

GROUP OUTCOMES

Evidence from video records, observation and record keeping showed that all the students made changes over the first year of attending the group which appeared to be linked to their attendance. The achievement of the students in the group, and the extent to which the group has been perceived by staff as beneficial and effective, surpassed our expectations.

Despite the students having no obvious observable awareness of each other, they all seem to have impacted on each other. All the students improved their speed and rates of response over time which, we hypothesise, may be due to the element of competition and also because if they did not respond, the activity moved on and the opportunity was lost. This was in contrast with individual sessions where we would tend to continue to wait and prompt students to respond for longer periods of time.

We feel that they benefit from not being the sole focus of attention, and that staff benefit from continuing to be motivated to keep trying as at some point there would be at least one pupil responding, even if others were not doing anything. Each time a student participated, or achieved something new, the atmosphere of the group as a whole increased in positivity which seemed to set up a cycle of achievement. It also appears that, by being in groups of peers, the students served as role models for each other and that this led to an increase in skills.

Our 'no fail' approach, particularly in the early sessions, allowed the students to take risks in responding and thereby to develop their self-confidence, increasing the cycle of being willing to attempt an answer.

The agenda of staff training was definitely met, staff were very positive about coming to the group and would prioritise attendance. They consistently commented on how much they enjoyed the session and how delighted they were at the achievements of the pupils. This appeared to lead to raising expectations in class and more concerted efforts at supporting students to demonstrate their abilities in all situations. ✱

Anne Emerson, *Lecturer*
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Telling Stories

The communicative roles played by a natural speaker and an aided speaker during narrative interaction

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BACKGROUND

This paper presents findings from a single case as part of a current PhD research project focusing on the use of augmentative and alternative communication (AAC) during narrative interaction between aided speaking pupils and their teaching staff. Within education, the most important conversation partners for an AAC user is their teaching staff (Popich & Alant, 1999) and therefore, staff-pupil interactions are highly significant for an AAC user's language development (Millar, 2001).

Narrative has been identified as being important to a child's language development and in normal development narrative begins to emerge from as early as 3 years old (Owens, 2008). The use of narrative with AAC users has therefore been suggested as key to development (Liboiron & Soto, 2006). Narrative focuses on the sharing of experience, and this is why it is viewed as central to the English curriculum (Grove, 2005). Despite this, the narrative interaction between AAC users and their teaching staff remains under-researched.

METHODOLOGY

The aim of the study was to examine the key features and communicative roles employed in narrative interactions between pupil (aided speaker) and teaching staff (natural speaker). Ethical approval for the study was granted by the University of East Anglia School of Education and Lifelong Learning Ethics Committee.

AS Participant (relevant NS)	Age	Principle Diagnosis	Device used	Length of time using device
Josh (NS1)	7:11	ASD	Mobi Tellus	4 months
Sally (NS2)	12:08	Cerebral Palsy	Alea Intelligaze	4 months
Oliver (NS3)	9:06	Dyspraxia, Chromosomal Abnormality	Samsung NP-Q1 Ultra with Q-talk software	12 months
Ben (NS4)	10:11	Cerebral Palsy	Dynavox III MT4	3 years

Table 1 AS participant demographics

Due to the small population of high-tech AAC users, participants were recruited using a convenience sampling method using an inclusion/exclusion criteria. Participant demographics of aided speaker (AS) and natural speaker (NS) participants are shown in Tables 1 and 2.

Four data collection sessions were held with each participant over a period of three months. All data collection sessions were completed in a familiar room within the participant's school to minimise reactivity to the environment. Once both participants were comfortable in the research environment the NS held an informal conversation with the AS and explained the narrative tasks to be completed. This ensured that both participants became familiar with the environment, limiting reactivity to the video cameras used.

Two video cameras were used for data collection: one to capture both participants from the front and a second camera to capture the AS's device screen and a more accurate picture of the NS face. A digital voice recorder was also used to ensure a high quality of audio recording.

Fictional stimuli used were all selected from well known speech and language therapy assessments: *Renfrew Bus Story*

Participant	*Position held*	*Total years working with SEN*	*Total time working with participant*	*Time spent with participant per week*
NS1	*Class teacher*	*16 years*	*Approx. 4 months*	*Full school day, 5 days/week*
NS2	*Communication specialist teaching assistant*	*9 years*	*3 years*	*1 morning/week and extra hours as requested by teacher*
NS3	*Class teacher*	*20 years*	*2 years*	*Full school day, 5 days/week*
NS4	*Class teacher*	*17 years*	*Approx. 6 months*	*Full school day, 5 days/week*

Table 2 NS participant demographics

(Renfrew), *Peter and the Cat* (Black Sheep Press Ltd) and *The Squirrel Story* (Black Sheep Press Ltd). For this task the NS presented the AS with a picture book positioning it so both participants could see it. Both participants then looked through the book before the NS asked the AS to tell the story shown by the pictures. Once the AS appeared to have finished their narrative, the NS asked "Is that everything?" before assuming the AS had finished to ensure they were happy with the narrative produced.

The stimuli selected for the personal narrative task had been used successfully in past research to elicit personal narratives (Allen et al, 1994). This past research was completed in America and therefore the topics were selected as most relevant for the current participants. The subjects chosen were a birthday, Christmas, pets and Your first day at school.

This task was introduced by the NS using the phrase "I'm going to tell you a story about (*given subject*) then I'd like you to try and tell me one", or equivalent. At this point the NS then told a short personal narrative on the topic, provided by the researcher. Once they had completed their story the NS asked the AS if they would tell a similar story. This was captured as the personal narrative sample. The same procedure as above was used to check the narrative had been completed.

ANALYSIS

The informal conversation and introduction of tasks were deleted from final analysis to limit the effect of camera reactivity on the findings. All verbal and non verbal acts recorded were transcribed into standard orthography in accordance with the conventions from Johnson (1995). Transcripts were used alongside video capture to improve accuracy of coding each interaction. Three outcome measures were used in order to identify the roles occupied by each of the communication partners. These were communication modality, linguistic move type and type-token ratio.

Communication modality was coded using a momentary time sampling (MTS) methodology. MTS is a systematic observation method in which it is recorded whether a target behaviour is happening at the end of a specified interval. This was done by superimposing bleeps onto each recording at ten second intervals using the video editing software Adobe Premiere Elements 4.0. The researcher then coded the communication modality in use at each bleep (Brulle & Repp, 1984).

Once coded, this data was used to yield the proportions for modalities used and provide comparisons between NS and AS. Modality of communication was coded using the following categories: 'speech', 'vocal gesture', 'co-action', 'AAC-encoding', 'AAC-output', 'eye gaze device', 'eye gaze person', 'eye gaze other', 'facial and body gesture', 'sign', 'environmental reference', 'neutral' and 'not possible to code'.

The second coding structure used was based on the Human Communication Research Centre Move Category Codes (Based on Carletta et al, 1997). This structure codes the linguistic purpose of the communicative moves made by the participants. This highlights the roles played by the NS and AS by providing

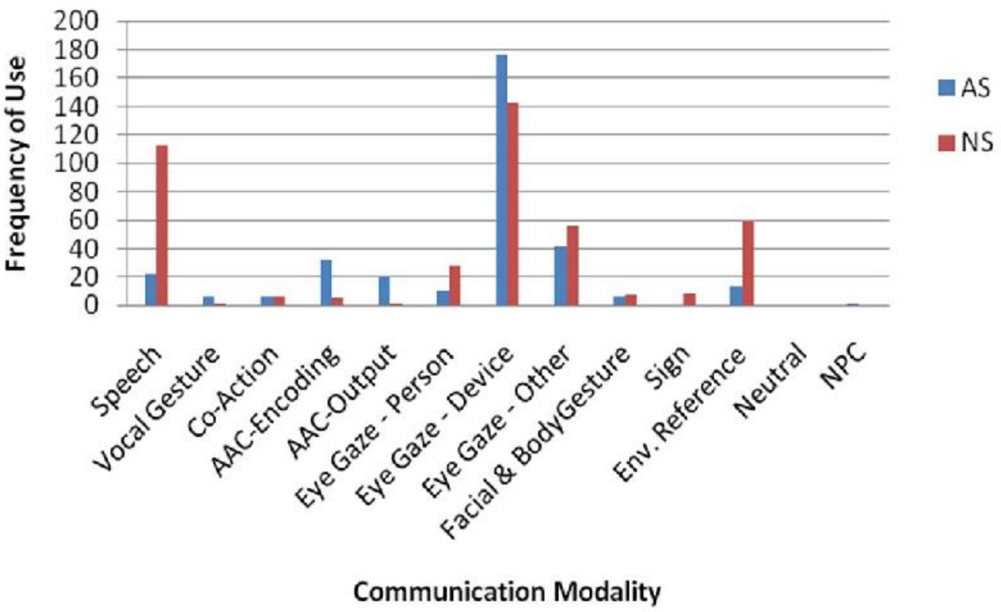

Figure 1 Distribution of Communication Modalities across four data collection sessions

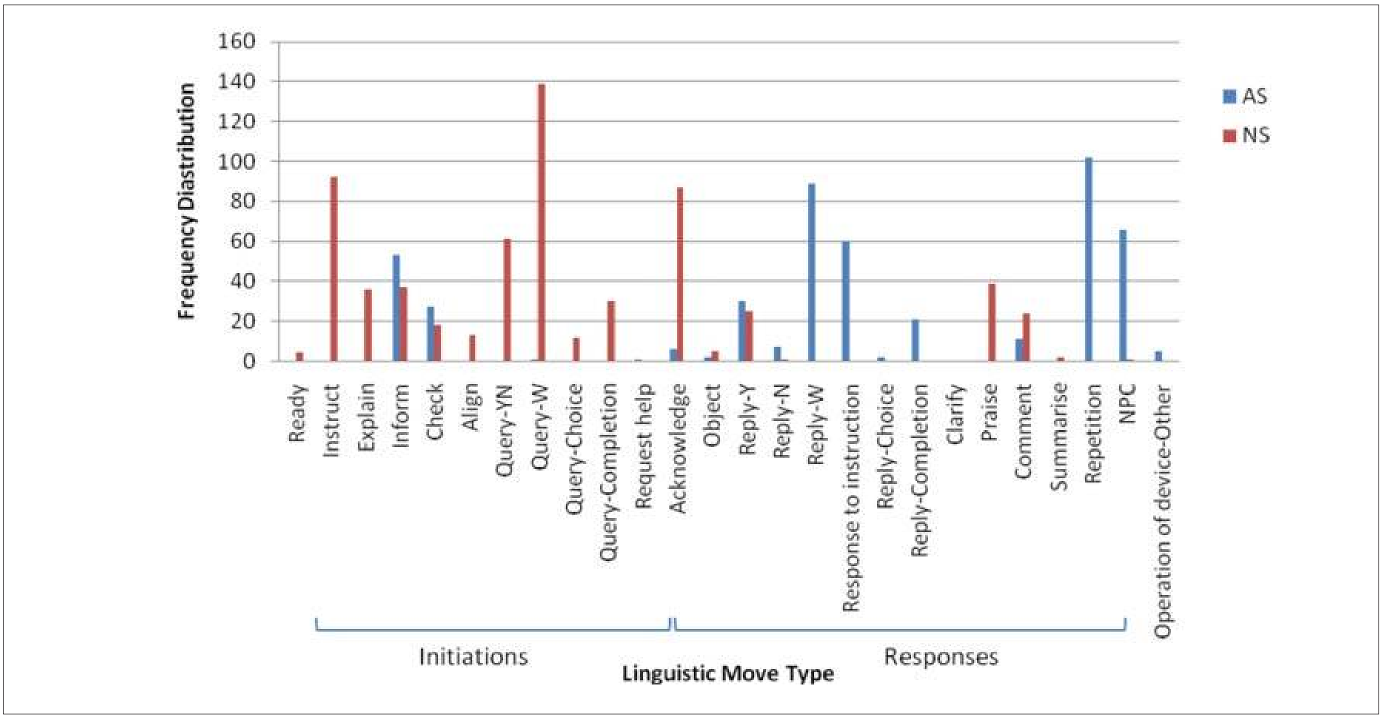

Figure 2 Distribution of Linguistic move types across four data collection sessions

detailed analysis of how each communicative move is employed to construct the narrative. This structure was originally developed for the analysis of an instructional task interaction, and was therefore adapted following a pilot study to test the relevance of the existing codes to narrative interaction. The codes developed for use in the full study are shown in Appendix 1.

Type-token ratios (TTR) were also calculated in order to provide a measure of linguistic complexity (Watkins & Kelly, 1995). TTR is a ratio of the number of different words ('types') in a language sample to the total number of words used within that sample ('tokens'). This ratio provided an indication of the linguistic diversity used by participants. The total number of content words and function words were also calculated. This enabled a more detailed depiction of the vocabulary used by AAC users during narrative interaction.

	Personal	*Fictional*
Total Content Words	132	285
Total Function Words	4	10
Token	136	295
Type	67	98
TTR	**0.49**	**0.33**

Table 3 Summary table of vocabulary type & TTR

FINDINGS

The findings presented are from a single participant dyad: Josh and his teacher (NS1). They provide a detailed observation of the narrative construction process between the NS and AS. The findings also enable the identification of the roles occupied by the two interlocutors within the interaction.

Communication Modality

A wide range of communication modalities were used by both AS and NS during all narrative interactions. The AS employed a total of nine modalities and the NS made use of eleven. Eye gaze-device was the most common occurring modality for both interlocutors (AS n=176, NS n=142). Speech was the second most used modality by the NS (n=113). In contrast, the AS tended to use a wide spread of the modalities more equally. Figure 1 also shows that the AAC device was employed not only by the AS but also by the NS. The NS was coded AAC-encoding on five occasions and AAC-output once.

Linguistic Moves

Figure 2 shows clear disparity between the interlocutors in terms of the type of linguistic moves made during narrative interaction. The NS made 438 initiation moves across all narratives recorded whereas the AS only produced a total of 81. In relation to this, the majority of the AS moves were responses, totalling 228 moves in comparison to the NS who made 184 responses.

The difference between the interlocutors was also shown in the mean number of linguistic moves made. The NS was identified as making a greater mean number of linguistic moves across both narrative conditions.

A large number of question types were employed by the NS in order to elicit narrative during all recorded interactions. Other directive moves such as instructions were also shown to make up a large proportion of the NS initiation moves. Alongside the high number of initiations, the NS role also included the provision of acknowledgement of the AS moves. The NS produced a total of 87 'acknowledge' and 24 'praise' moves. This highlights the considerable position that feedback held within the process of narrative construction.

TTR

There is a considerable difference between the number of content and function words used across both narrative conditions. These findings show a high frequency of content words during narrative construction with little grammatical or syntactic structure added through function word usage. The sum of the total words shows a disparity between conditions, with over twice as many words produced under the fictional narrative condition.

However, despite a larger number of words in use during the fictional narrative condition there is not as large a ratio between different words and total words used. This leads to the TTR being lower for fictional narrative construction (TTR=0.33) than across personal narratives (TTR=0.49).

CONCLUSIONS

This paper presents the findings from 8 narratives produced by a single case during the 'Telling Stories' PhD study. Due to the small amount of data and single case presented generalisation is not possible. However, some patterns of interaction showed similarities to those observed in existing research of conversational interaction between AAC users and both parents and peers (Pennington & McConaghie, 1999; Clarke & Kirton, 2003).

In corroboration with the existing studies, the findings showed distinct roles between the AS and NS with an initiation, response, feedback type pattern observed. The AS produced responses to a predominance of questions from the NS leading to a question-answer structure to the narratives recorded. This provided evidence of narrative co-construction as opposed to the independent construction modelled by the NS.

The paper has presented a single case from the full findings of the 'Telling Stories' project and therefore provides only a brief overview of the patterns of interaction observed. However, due to the corroboration between the NS initiation and AS respondent roles identified in this study and existing AAC user interaction studies, it is suggested that the findings may provide important information for the future development of narrative language use for aided speakers. ✱

Pippa Bailey, *Research Student*

Dr Karen Bunning, *Reader*

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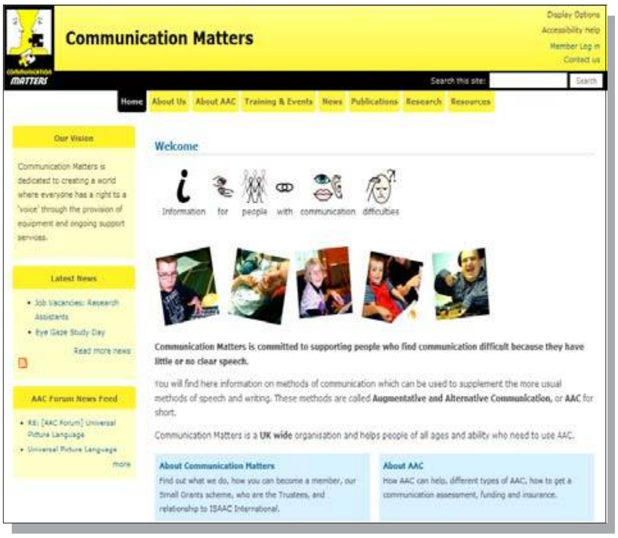
APPENDIX 1 - LINGUISTIC MOVES CODED

Preparation
Ready
Initiation
Explain *Inform* *Check* *Align* *Query-YN* *Query-W* *Query-Choice* *Query-Completion* *Request for help*
Response
Acknowledge *Object* *Reply-Y* *Reply-N* *Reply-W* *Response to instruction* *Reply-Choice* *Reply-Completion* *Clarify* *Praise* *Comment* *Summarise*
No Communicative Function
Operation of device-Other *Repetition*



AAC in Northamptonshire

Involving parents

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INTRODUCTION

The fundamental aim of AAC interventions is to aid the development of participation in all types of situations and yet research suggests that AAC is much more likely to be used in educational contexts rather than in natural contexts. For almost all children, the most natural context for communication is the home: AAC interventions affect not only the child but also the parents and siblings.

This paper describes how the Northamptonshire AAC team is working with parents of children using AAC to develop their confidence and knowledge of the AAC process. It will also consider a small scale evaluation of the County AAC service and parents' views on their child's communication and implementation of AAC within the home.

MODEL OF SERVICE DELIVERY IN NORTHAMPTONSHIRE

Within Northamptonshire there is a multi-agency commitment to improving the identification and provision of AAC for children from pre-school to nineteen years of age. The service was developed in 2002 through collaboration between Northamptonshire County Council and the NHS Trust which resulted in the establishment of two AAC assessment teams, in the North and South of the County. The teams consist of the Additional Needs Team of specialist teachers, a County AAC Officer, special school staff, specialist speech and language therapists, physiotherapists and occupational therapists.

Northamptonshire AAC Conference/Parent Forum held in 2011

The Northamptonshire AAC Policy and Practice document identifies the 'AAC pathway' and a casework meeting is held six times a year to discuss referrals with the identification of a lead person for each assessment who will liaise with the child, family and other professionals involved.

Within the County there are two loan libraries for low and high tech equipment and, following assessment, children may be offered a trial of a device to establish whether it is the most appropriate for their needs. Through additional funding, four Special schools within the County have also developed their knowledge and expertise in AAC and children are using augmentative communication extensively within these schools.

SMALL SCALE EVALUATION

In 2010 a small scale evaluation of the service was conducted: to explore the parents' perceptions of the current AAC service; identify possible improvements to service delivery; and consider the barriers to the successful use of AAC within the home as identified by parents.

The teams were aware that targets set following an assessment – in agreement with schools, the child and their family, – were not being fully achieved and the children were failing to use their devices in all environments. The study was based on the premise that for AAC outcomes to be successful, parental involvement was vital in supporting the child's use of AAC and developing communication in everyday life.

The parents of eight children/young adults aged between 9-22 years agreed to be interviewed as part of the study. All the children/young adults were previously assessed or supported by the County AAC Service and were using a high tech device as one of their communication modalities.

The semi-structured interviews with parents were recorded and subsequently transcribed. A thematic analysis of the interview transcripts identified parents' views on the county service and the barriers they perceived to effective AAC use within the home.

PARENTS' VIEWS AND EXPERIENCES OF AAC PROCESS

The study outcomes were favourable about the process of referral, assessment and funding of AAC services in Northamptonshire. The process of applying and receiving high tech AAC devices was considered effective, with the assessment seen as child-focused and informative:

"It was quite straightforward and we sailed through it."

Families were positive about the AAC intervention methods to which they were introduced, but reported: (1) they wanted to be more involved in decision-making concerning their child's overall communication needs and (2) they required further support in implementing AAC within the home. This was particularly mentioned in terms of communication books, as parents were unaware as to how to implement them effectively at home.

These results compared with other studies which found professionals need to be more open in their communication with parents (Goldbart and Marshall, 2008, Parette et al, 2000, Allaire et al, 1991) and need to develop more collaborative problem solving (Granlund et al 1998).

The importance of early intervention was stressed by parents and the identification of need for AAC at the earliest opportunity:

"If we could have the expertise right from the beginning we would have got to where we are much quicker."

PARENTS' VIEWS ON HIGH TECH DEVICES

Parents reported initial unrealistic aspirations and goals concerning the introduction of a device:

"We thought it would be some sort of breakthrough and enable him to talk to anyone."

One parent considered the device would be of some help but did not realise how important it was to become for her child's communication:

"I didn't realise how important self-generated conversation is."

Parents acknowledged the considerable time needed for training, personalising the device and for its initial implementation. The degree of parental involvement in programming the device was wide ranging but for some parents, programming was a major challenge. These parents felt a more individualised training geared to their own knowledge, capabilities and understanding of technology would be beneficial, with a rolling programme of training to build on their previous learning.

Professionals need to acknowledge the additional time required to implement AAC strategies and also be aware that this may lead to stress for the family (Jones, Angelo and Kokoska, 1998).

Parents suggested their children benefited from 'add-ons' (keyboard, predictive text, mobile phone) at different developmental stages and that they were reliant on professionals who knew their child well to suggest additional technological support when available or appropriate for their child.

Parents felt they would like a review of their child's communication at least once a year at which new strategies or technological advances/equipment could be discussed.

PARENTS' VIEWS ON THEIR CHILD'S COMMUNICATION AT HOME

Parents in the study were able to give full and extensive reports of their children's communication and the different modes they used. All the AAC users used more than one mode of communication and this is supported by other studies (Allaire et al 1991, Romski and Sevcik 2005) with gestures/signing and speech the most frequently used modes (Fig. 1).

The parents considered the communication modes currently used at home were effective but they were also able to identify barriers which limited their child's communication:

"Everything is so slow for him – he has to be accurate on hitting the switch."

"It's really how he is feeling – when he is physically low you get much less out of him."

Parents reported their children used their devices less with unfamiliar adults and relied on others to communicate for them:

"When he's with people he knows, he's straight in but when he doesn't know people he will only address questions to the person he is with, the carer."

The importance of skilled communication partners was highlighted, particularly for expanding their child's involvement in different situations, illustrating the need for training of communication partners (Lund and Light, 2007) across the child's social networks.

They reported feelings of isolation and loneliness as a result of their child using an alternative form of communication, and peer mentoring and meeting other AAC users were considered a good way forward to improve their child's communication and their own support networks.

This small scale study illustrated both the challenges and support available for implementing AAC strategies within the home. The study led to a more in depth understanding of different perspectives on AAC which were used to develop

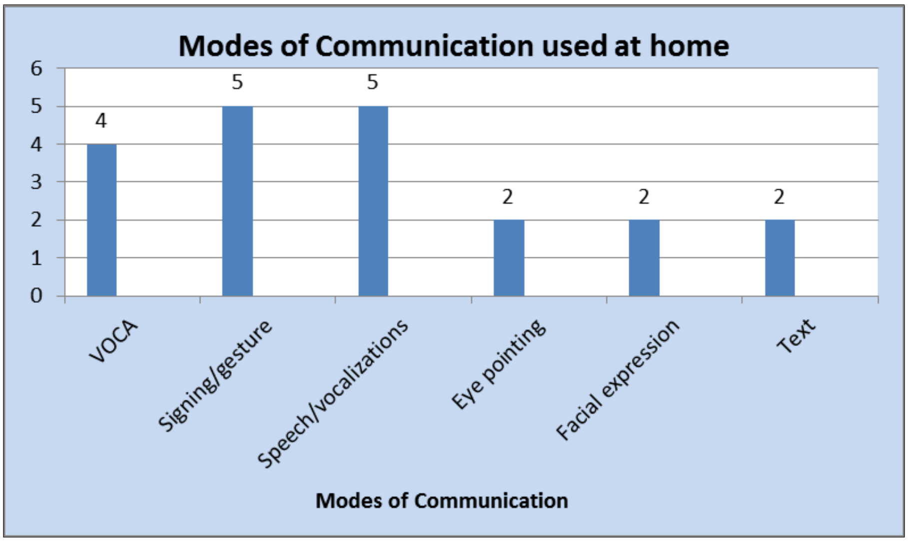


Figure 1 Modes of Communication used at home by child/young adult (N=8)

and improve service provision and delivery within the County. A number of activities were organised in 2011 with the aim of promoting further liaison with families on using AAC within the home and addressing some of the concerns highlighted within the evaluation.

PROJECTS IN NORTHAMPTONSHIRE IN 2011

Northamptonshire AAC Conference/ Parent Forum

A Parent Forum and an AAC Conference were held in 2011, focusing on the involvement of parents in AAC. One of the highlights of the conference was the launch of *Yakety-Yak*, a web-based forum for parents in Northamptonshire (www.yaketyyak.org.uk), which also has the support of the Northamptonshire Parent Partnership Service.

At the annual AAC conference, a parent of a child using AAC gave her 'Top Parent Tips' (Fig. 2) and a well received presentation on her experiences of AAC and her daughter's journey. The conference also included a concert from pupils in five Northamptonshire Special schools, using their communication aids to contribute in storytelling and songs, further illustrating the importance of participation and involvement for children using alternative communication systems.

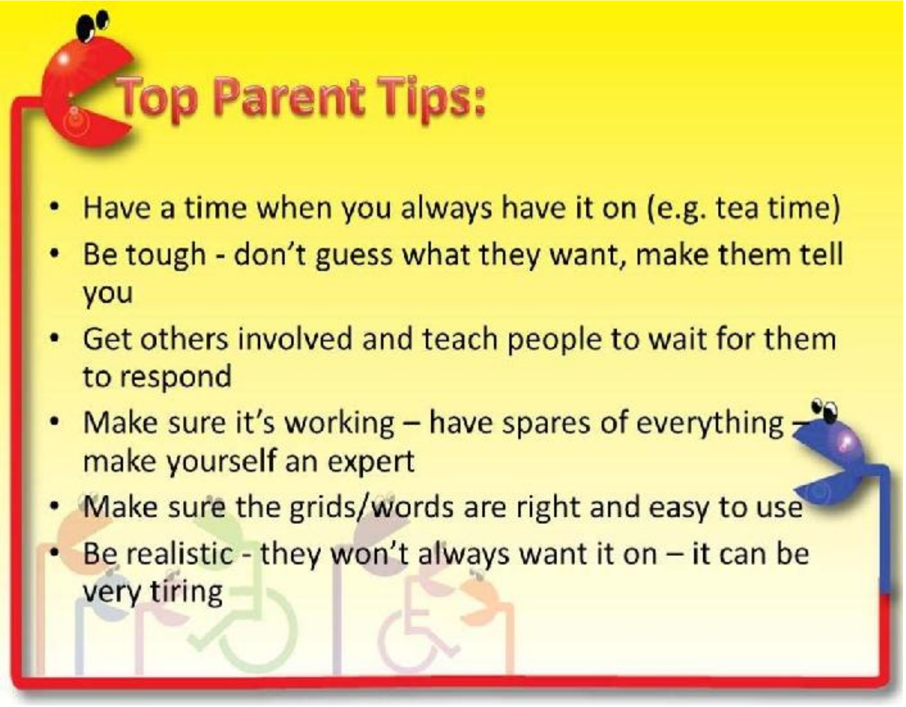
Individualised Training

Parents in the study reported considerable problems with programming devices and making resources for use within the home. Acting on these findings, the AAC Officer, Specialist Speech and Language Therapist and AAC Co-ordinator at Greenfields School in Northampton held a series of coffee mornings once a month to support parents by helping them programme devices and collaboratively consider suitable vocabulary.

The emphasis was on family decision making and developing the family's strengths (Crais, 1994) and problem solving the use of the device within the home. One aim was to encourage the parents to provide a further network of support for each other to overcome some of the challenges of using AAC within the home.

Early Intervention

In 2011 the Northamptonshire AAC team was asked to pilot a training course *You Matter* developed by the ACE Centre and NHS Milton Keynes to deliver to parents of children with significant speech difficulties and their supporting professionals.



Top Parent Tips:

- Have a time when you always have it on (e.g. tea time)
- Be tough - don't guess what they want, make them tell you
- Get others involved and teach people to wait for them to respond
- Make sure it's working – have spares of everything – make yourself an expert
- Make sure the grids/words are right and easy to use
- Be realistic - they won't always want it on – it can be very tiring

Figure 2 A parent's view on using AAC within the home

The course was two and a half days and incorporated an opportunity for parents to be videoed at home or in school with their child with the aim of helping participants to review their own style of interaction and to discuss any concerns they might have about their child using aided communication.

The feedback received from parents attending the initial *You Matter* course was excellent and showed the team the importance of providing practical support for parents in implementing AAC within the home. Since the trial, the AAC team has held a further *You Matter* course and plans to implement this training for parents twice a year.

CONCLUSION

Positive communication outcomes are linked to parents who are actively involved in planning and organising their children's learning experiences (Launonen 2003).

The County AAC team acknowledges the vital role of parents in supporting and enhancing AAC and continues to develop the involvement of parents by seeking their views, and the views of the children, during every part of the AAC process. The establishment of the Northamptonshire County AAC service has enabled children with complex communication needs to receive appropriate devices and support.

However, the service needs to maintain its collaboration with parents and education staff to enable the child to use their communication systems functionally in all settings. ✱

Clare Pearce
Northamptonshire County Lead for AAC

Deborah Pugh
Speech & Language Therapist

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PECS with Older Students and Adults?

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INTRODUCTION

The *Picture Exchange Communication System* (PECS) is an AAC system which was developed over 20 years ago, initially for children with autism, although it is now more widely used across a range of different disabilities.

PECS is a picture-symbol-based approach which emphasises the transactional nature of communication (Bondy and Frost, 1994). It focuses on the initiation component of communication and goes on to teach discrimination of symbols and construction of simple symbol sentences and encourages the user to progress through a number of phases. Other pragmatic skills such as commenting or answering questions are taught at later stages.

Many schools use PECS as a communication system; however, there is much less evidence of its use in adult services. Similarly, in the writers' clinical experience anecdotal parent/carer reports suggest that PECS is used much less frequently in the child/adult's home. One reason for this may be lack of training and support for its implementation.

PECS is different from other communication systems in that it uses behavioural principles such as shaping and differential reinforcement. Therefore its successful implementation is reliant on an understanding of the procedures and/or teaching techniques such as error correction and prompting.

Anecdotally, speech and language therapists have reported that some older students using PECS can become 'stuck' at a certain phase. The focus and outcome of the PECS use was often on the user's needs, wants and their behavioural management. PECS was typically only used in structured activities e.g. snack time or structured literacy sessions. Again, anecdotally there are concerns that some PECS users had not developed strategic competence of the system, so when they transitioned, e.g. to another class or adult setting, they did not use their PECS spontaneously. This was a particular concern for older students who would be transitioning to adult services.

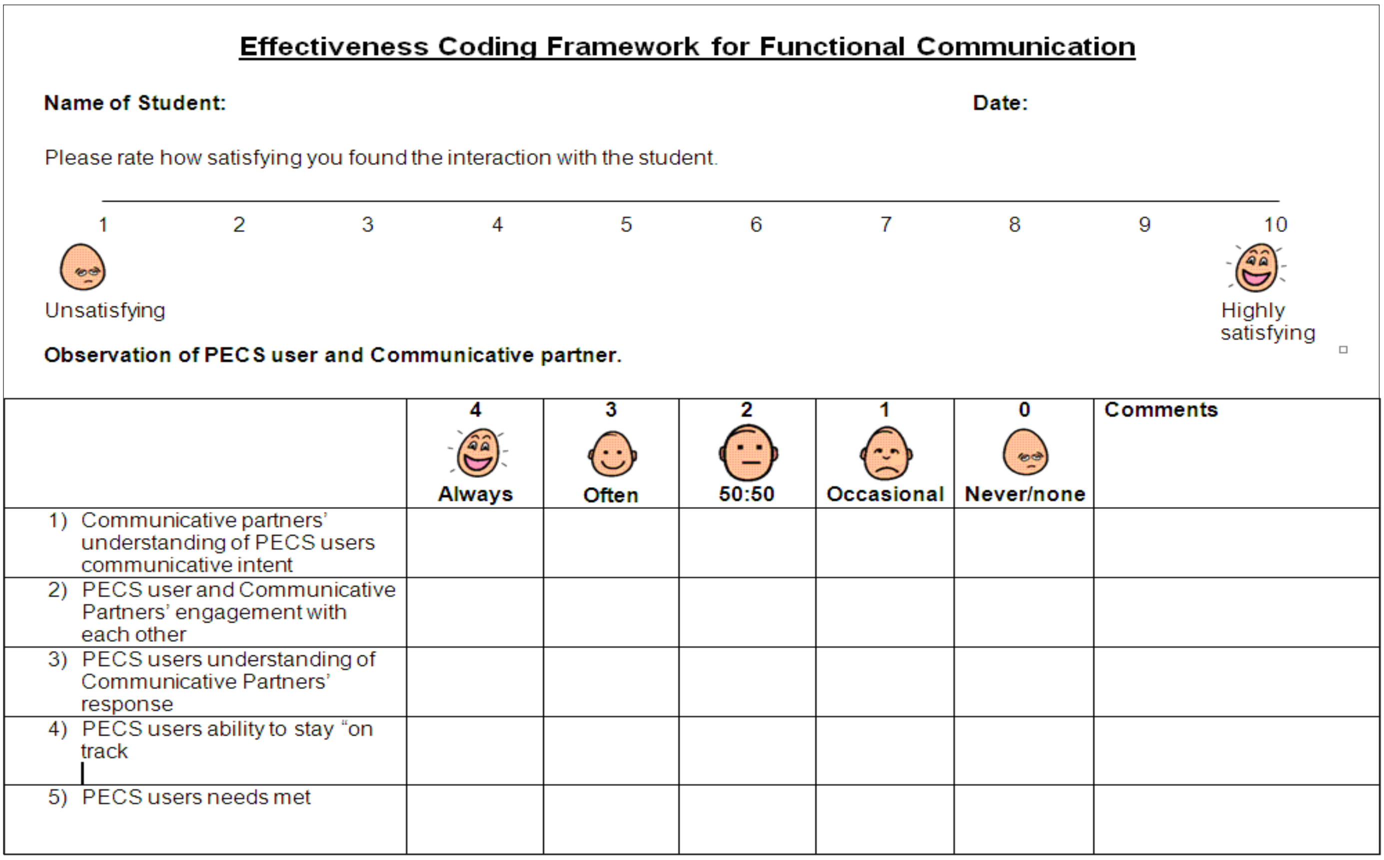
For PECS users who had developed strategic competence and ownership of their PECS folder, there appears to be higher use of PECS across settings, e.g. making requests for drinks/snacks/motivators. However, requesting alone does not make an individual a functionally effective communicator.

There is a concern that there is no commonly agreed definition of functional communication. Functional communication can mean different things to different professionals, parents/carers or stakeholders. It is influenced by many factors including professional background, training, experience, personality and culture.

Functional communication as defined by Light (1988), involves needs and wants, information transfer, social closeness and social etiquette. Social closeness and etiquette are areas where there is far less research evidence. Joan Murphy (Communication Matters National Conference 2010) raised this issue and presented a Functional Communication Framework which could be used to include and rate these features.

THE PURPOSE OF THIS STUDY

PECS with Older Students and Adults? aimed to explore whether a coding framework could be used to analyse PECS users and their communication partners' interaction. Of particular focus was rating areas relating to social closeness. This information could then be used to identify strategies to help develop the PECS users' functional communicative competence.



Effectiveness Coding Framework for Functional Communication

Name of Student: **Date:**

Please rate how satisfying you found the interaction with the student.

1 2 3 4 5 6 7 8 9 10

Unsatisfying Highly satisfying

Observation of PECS user and Communicative partner.

	4 Always	3 Often	2 50:50	1 Occasional	0 Never/none	Comments
1) Communicative partners' understanding of PECS users communicative intent						
2) PECS user and Communicative Partners' engagement with each other						
3) PECS users understanding of Communicative Partners' response						
4) PECS users ability to stay “on track						
5) PECS users needs met						

Table 1 Showing part of adapted version of Framework extended to include qualitative indicators, e.g. naturalness

STUDY DESIGN

The Effectiveness Coding Framework for Functional Communication (Murphy, 2010 and Cameron, 2010) was adapted and some features added for PECS users (Table 1).

PARTICIPANTS IN THE STUDY

- Seven students across two special schools.
- Aged 17-19 years.
- Six had a diagnosis of autism and one of Cornelia de Lange syndrome.
- All had used PECS for 5+ years.
- PECS use ranged between phases 2-6.

Consent from the PECS users to participate in the study was gained. Each PECS user was assessed using a functional assessment of capacity and if it showed the PECS user was unable to consent, a best interest discussion was held.

Video footage was taken of each student interacting with familiar communication partners in their classroom at snack time. The videos of the PECS users were rated using the adapted version of the Effectiveness Coding Framework for Functional Communication (EFFC).

Five additional Speech and Language Therapists viewed the videos using the EFFC to establish consensus around ease of use of the EFFC.

Feedback sessions with school staff were arranged to discuss how to support the PECS user's communication needs.

OUTCOMES

The EFFC was a quick and easy tool to use; however, on occasion there was a need for further discussion about what each feature being rated related to.

It was felt that prompt questions were useful to help clarify each feature and these were added to the EFFC, for example:

Timing/Pacing: Was the pacing of the interaction appropriate? Were there long pauses/delays? Did these disrupt the flow? How could this be improved?

Naturalness: Were any features of PECS – e.g. design, number of symbols – a barrier to the interaction? Were any strategies used by the Communicative Partner a barrier to naturalness of interaction? How could this be improved?

Other prompt questions included:

- Did the communicative partner know what the PECS user wanted or what they were trying to communicate? What modes of communication were most easily understood? How could this be improved?
- How were the PECS user and communicative partner positioned, e.g. side by side, standing, sitting? Was there shared eye contact, smiling? Was there shared enjoyment? How could this be improved?
- Was the communicative partner's behaviour predictable? Was the language level appropriate? Did any other modes help? How could this be improved?

DISCUSSION

The EFFC was a useful tool to prompt reflection and consider how to develop the students' Total Communication.

It highlighted the need for the communication partner to attend to spontaneous, naturalistic non-verbal communication. It also illustrated that sometimes a formal system (e.g. PECS) may be being given greater value than informal or idiosyncratic behaviours.

It was observed that some training strategies used in PECS may not encourage engagement and social closeness e.g. removal of eye contact, physical proximity, communicative partner turning away or using a ‘blank’ facial expression. It is important that these behaviours are reviewed and phased out.

All the students in this study were established PECS users (over 5 years). In some cases the EFFC highlighted that there had been a focus and emphasis on continual PECS teaching, i.e. progressions through PECS phases. One could suggest that it is important to consider mastery of skills and have a discussion and agreement on when to focus on teaching and using Total Communication across environments rather than teaching the next PECS phases.

Qualitative analysis of the interaction would suggest that the PECS user's communicative competence was not linked to the phase of PECS use. For example a student at an early phase of exchanging a single symbol could do this in a manner where there was social eye contact, shared attention and equality of control. The communicative partner's communication style was a major influence on the effectiveness of the PECS user's functional communication. "The partner is no doubt a major factor in the success or failure of many communicative interactions." (Light, 1988)

The EFFC can provide a structure for rating qualitative aspects of communication. It could be used as an outcome measure pre and post intervention and can encourage a collaborative approach, identifying which modes of communication are most effective and what for.

As students move out of school into adult services they need to have systems and approaches which are effective, natural, person-centred and which go beyond needs and wants. The finding from this pilot study would suggest that the EFFC is a tool that can guide therapists in clinical decision making around the use of PECS with older students and adults.

There is a general consensus that the abandonment of AAC systems including PECS is an issue and is of particular concern during the transition from paediatric to adult services. By exploring and considering broader aspects of interaction linked to social closeness perhaps we can have better understanding of how to develop appropriate AAC systems that are easy to use, rewarding, and effective to both the communicative partner and user. Further research in this area is needed. ✱

Nikky Steiner
Speech & Language Therapist

Sarah Upton
Transition Speech & Language Therapist

THANKS

We would like to thank the staff and students at Greenvale and Tuke schools for their time and involvement in the study. Special thanks to Cher Tully for her insight and suggestions. Additionally, we thank Lois Cameron and Joan Murphy for their support and feedback in the use of the EFFC.

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COLLATED BY JANICE MURRAY, CHAIR

ISAAC CONFERENCE

Writing this in July, it is just two days before I set off for the ISAAC conference in Pittsburgh, USA. At this event there will be many opportunities to update on the latest research, practice and user perspectives.

Those Communication Matters members fortunate enough to be attending hope to be able to share some of this information when we next meet at our own CM2012 National Conference in Leicester on 23-25 September.

Whilst at ISAAC, I will be attending an all-day meeting for all Chapter representatives (the ISAAC Council meeting). This will allow us to discuss issues that are uppermost in our minds and find out what is happening across the world in terms of AAC.

I will be re-visiting some discussion points raised at the previous meeting of its kind held in Barcelona in 2010. For example:

- What do Chapters get from their ISAAC membership?
- Waiving of ISAAC capitation fees for subsidised membership categories within Communication Matters.
- Issues that are important to present the UK perspective on, e.g. technology developments and intervention approaches.
- AAC topics.

ISAAC remains an important organisation for many people; it is my role to ensure that the UK gets the most from its membership of ISAAC.

PUBLICATIONS

Communication Matters continues to be very busy.

We are in the process of producing a publication on outcome measurement which will be launched at the CM2012 conference in September, along with the remaining Quality Standards documents. We anticipate a similar document on competencies to follow.

LOBBYING & MARKETING

We continue to work with The Whitehouse Consultancy, a company that is making a difference to our lobbying activities. Part of this collaboration has resulted in another parliamentary event anticipated for 12th September. Watch this space and the Communication Matter E-News for more information.

Partly on the back of this activity, we have just appointed a part-time consultant in Marketing (Sandra Hartley) to review and develop a marketing strategy that will ensure that we grow in membership, raise awareness across a wider group of people and employees involved in complex communication difficulties; and secure the evolution of our organisation in terms of activity and impact. This will commence in September and we will review this exciting development in 12 months' time.

ONLINE TRAINING COURSE

Our online training course is about to be launched. This was developed with considerable input from the membership in terms of video material. Again, watch out for a CM E-News announcement.

RESEARCH

You will see from the AAC Evidence Base Research update on page 29 that the project continues to make headway with exciting updates due for launch at the conference in September.

AND FINALLY...

This will be the last Trustees' News that I will have responsibility for writing, as I am coming to the end of my three-year term of office as Chair of Communication Matters.

Over that time, I have had the privilege of working with a large number of people who are both an inspiration to me and a challenge for me to do more, and to do it better.

I believe that Communication Matters remains a strong organisation that is moving forward. Its strength comes from its focus on AAC but its capacity to view AAC from many perspectives. These perspectives keep us open minded and forward reaching.

Whilst I would like to express my thanks for the opportunity to serve as your Chair over the last few years, I can assure you that my commitment to Communication Matters will remain strong and I do not plan to disappear entirely. ✱

Janice Murray
Chair of Communication Matters

BHTA eCAT NEWS

LOBBYING

Following the House of Lords event in March 2012 to raise awareness of the need to support children and adults who require AAC services and communication aids, Lord Rennard attended the last eCAT meeting to discuss how the event had been received very positively and to confirm that support from him alongside the lobbying from Communication Matters was continuing. He also gave an insight into how questions might be asked in the House of Lords in order to obtain more support and funding for AAC users and their carers.

POSITION PAPER

In relation to this there was a discussion regarding a possible 'position paper' that might be given to Government officials and members of the House of Lords, setting out the current position of AAC in an effort to increase awareness of the lack of processes and procedures, the 'postcode lottery' and the general lack of funding. It was felt that this was important to ensure that decision makers were fully aware of the situation before any discussion took place in parliament. It was also felt important that this document should support both the work being done by Communication Matters in lobbying and the proposals put forward in Jean Gross's final report. We are going to try and produce a document to be available in time for the CM2012 National Conference in September.

IPADS AND OFF-THE-SHELF PRODUCTS

Another issue reported by members was the increasing number of incidents where fund-holders were purchasing iPads and other off-the-shelf products rather than specific communication aids against the advice of the relevant speech and Language therapist or other professional. This is a worrying trend that should be included in the position paper. eCAT members welcome the increase in opportunities for people with speech difficulties to gain access to an AAC device, which low priced off-the-shelf products have given, especially where it gives communication to someone who either cannot obtain funding for a more traditional AAC device or who does not need such a comprehensive device. However, the worrying trend is where, due to lack of funding, they are given inappropriately and against the advice of qualified professionals.

CM ROAD SHOWS

Another concern discussed by members related to Communication Matters Road Shows. As costs increase (due to higher refreshments and venue charges), these events need to be cost effective for suppliers, who share the overall costs between them as well as the costs incurred by Communication Matters in the administration and organisation. However, the concern is to see delegates remaining for the morning session and the free lunch and then not reappearing in the afternoon. Whereas members understand that sometimes circumstances dictate whether an individual can stay all day or not, it is disconcerting when delegates admit that they are using the opportunity either to get home early or even to "go shopping" – yes, we really have been told that!

We have made CM's administrator, Patrick Poon, aware of this concern but it is difficult to see what we can do to address the problem other than to ask delegates to be fair to suppliers and to stay until the end. Those who don't are effectively endangering the future of these Road Shows, which we believe are of benefit to the AAC community.

David Morgan, Chair of eCAT section, BHTA

Note: BHTA is the British Healthcare Trades Association; eCAT is one sector of the BHTA, dealing with electronic Communication and Assistive Technology

HOT NEWS

MARTIN PISTORIUS RECEIVES ISAAC AWARD

Congratulations to Martin Pistorius for receiving the ISAAC President's Award which acknowledges extraordinary support of ISAAC by an individual.

Martin was born in South Africa. Following an illness which left him with a significant disability, wheelchair bound and physically unable to speak, he spent 14 years in institutions for the profoundly mentally and physically disabled. In 2001 he was assessed at Pretoria's Centre for Augmentative and Alternative Communication, following which he learnt to communicate via computer and communication boards, and rebuilt a life worth living.

Martin has served on many national and international AAC committees, has given presentations in South Africa, Israel, Canada and the UK, and recently published a book on his life, *Ghost Boy.*

In 2008 he met the love of his life, Joanna and immigrated to the UK. Martin is currently studying Computer Science at the University of Hertfordshire, and is also running a freelance web designer/developer business in Essex.

HOT

NEWS

SOPHIE SHINES IN OLYMPIC TORCH RELAY

In June, Sophie McMullen, 18, proudly carried the Olympic torch through the streets of Bridlington.

Sophie, a student at Frederick Holmes post-16 college unit, uses a wheelchair and the torch was carried in a special holder attached to her chair.

Sophie's progress with the torch was watched by hundreds of people lining the streets of Bridlington and cheering her name; she was also featured on BBC Look North.

Sophie, 18, was nominated by Judith Chapman, a speech and language therapist who works for Humber NHS Foundation Trust within the school. Sophie uses an electronic 'talker', controlled by a head switch, for much of her communication. Sophie said:

"Judith nominated me because I have come on really well with my talker and I am an Augmentative and Alternative Communication (AAC) ambassador for the school"

Judith is full of praise for Sophie's achievements:

"When we have children at the school who we are thinking about starting with talkers, Sophie talks to them and to their parents and she runs and co-ordinates activities at AAC user days with other Yorkshire schools. She's a fantastic role model and she just seemed like the right person to carry the Olympic torch.

"Sophie's got a B grade double ICT GCSE, for which she studied at St Mary's College and is now doing courses at Hull College and is hoping to do more. She's just a lovely girl, even when she's being a stroppy teenager! She was one of the first communication aid users at the school and it hasn't always been easy, but she's brilliant at using it now.

"It's so important for people to know that even though Sophie can't talk very well she still has lots to say."

(Photo credit Mike Bickerton; courtesy Humber NHS FT)

PROFESSORSHIP FOR ANNALU WALLER

We are delighted to report that Annalu Waller – pioneer of AAC in South Africa and long time member of ISAAC and Communication Matters – has recently been appointed **Professor** Annalu Waller. Congratulations Annalu!

Annalu was born and educated in Cape Town, South Africa, where she established the first AAC assessment and training centre in 1987. She came to the UK in 1992 to do a PhD in Computer Science, at Dundee University, Scotland – and stayed. She was appointed Lecturer and then Senior Lecturer, and now leads a busy programme of research projects, all concerning aspects of Assistive Technology and AAC for the benefit of disabled people. She is committed to empowering end-users by involving them in the design of technological solutions.

Annalu is such a busy person that it's impossible to list all of her activities here. As well as heading up the AAC Research Group at Dundee University and supervising doctoral students, she is also on the boards of academic journals and of a number of national and international organisations, such as Blissymbolics Communication (UK and international), Capability Scotland, International Cerebral Palsy Society.

Annalu has a special gift of making complicated technical things easy to understand and simple to implement. Having cerebral palsy herself, Annalu always has special time and attention to give to young people who use AAC, and is much loved by them, as they see in her an inspiring role model and mentor.

Annalu is also an ordained priest in the Scottish Episcopal Church and works as an Honorary Chaplain at the University and in a local church, as part of a team.

(Photo courtesy of the University of Dundee)

DIARY DATES

11 September 2012 — *Webinar*
Switch Access and iPads
Contact CALL Scotland: 0131 651 6235 www.callscotland.org.uk

12 September 2012 — *London*
Communication Matters Parliamentary Briefing Event for MPs on AAC Commissioning in England
Contact: 0845 456 8211 www.communicationmatters.org.uk
COMMUNICATION MATTERS

13 September 2012 — *Oldham*
iPod and iPad Apps for AAC
Contact ACE Centre North: 0161 358 0151 www.ace-north.org.uk

14 September 2012 — *Edinburgh*
Eye Gaze - What is it, Who is it for, What is Available?
Contact CALL Scotland: 0131 651 6235 www.callscotland.org.uk

21-23 September 2012 — *Swanwick, Derbyshire*
1Voice 'Media Madness' Weekend
Contact 1Voice: 07932 858 363 www.1voice.info

23-25 September 2012 — *Leicester*
CM2012 National Conference
Contact: 0845 456 8211 www.communicationmatters.org.uk
COMMUNICATION MATTERS

2 October 2012 — *Webinar*
Co:Writer
Contact CALL Scotland: 0131 651 6235 www.callscotland.org.uk

DIARY DATES

13 November 2012 — *London*
Communication Matters Road Show: London
FREE Tel: 0845 456 8211 www.communicationmatters.org.uk
CM ROAD SHOW

15 November 2012 — *Edinburgh*
Technology for Complex Needs and Switch Users
Contact CALL Scotland: 0131 651 6235 www.callscotland.org.uk

22 November 2012 — *Edinburgh*
iPads, iPods - Easy to Use Picture Apps for Communication
Contact CALL Scotland: 0131 651 6235 www.callscotland.org.uk

26 November 2012 — *Warwick*
RAatE 2012 Conference
Contac hdti: 024 7615 8000 www.raate.org.uk

6 December 2012 — *Bristol*
Voice for Life (Bristol)
Contac Afasic: 0845 355 5577 www.afasicengland.org.uk

6 December 2012 — *Edinburgh*
Boardmaker Studio
Contact CALL Scotland: 0131 651 6235 www.callscotland.org.uk

7 February 2013 — *Merseyside*
Voice for Life (Merseyside)
Contact Afasic: 0845 355 5577 www.afasicengland.org.uk

COMMUNICATION MATTERS

2012 CM NATIONAL CONFERENCE

23-25 SEPTEMBER 2012 UNIVERSITY OF LEICESTER

The Communication Matters / ISAAC (UK) National Conference is an annual event embracing a wide range of issues relating to augmentative and alternative communication. The two and a half day event provides a forum to meet and to exchange information with representatives from all disciplines associated with AAC, including people who use AAC and their family members.

SYMPOSIUM PROGRAMME

Platform Presentations
Practical Workshops
Case Studies & Research Papers
Seminars
Trade Exhibition
Guest Speakers
Social Events

REGISTRATION

All registrations allow full access to all the presentations and trade exhibition. The registration fee also includes refreshments, lunch and evening meals. Residential registration additionally covers accommodation in student halls (with breakfast). There is a substantial discount if you register and pay before 31 July. Prices from £385 for full residential registration.

There are a number of subsidised places for people who use AAC, and their family members. Book early to avoid disappointment.

BOOKING FORM & INFORMATION

For further information and a booking form, please visit **www.communicationmatters.org.uk**, or ring Communication Matters on **0845 456 8211** or email: **admin@communicationmatters.org.uk**

Research Project – End of Second Year

Communication Matters – Research Matters: An AAC Evidence Base

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LOTTERY FUNDED

We have just completed the second year of the AAC Evidence Base project and this report reflects on the work to date and also looks forward to the exciting final year of the project which ends in June 2013.

GATHERING DATA

The University of Sheffield researchers (in collaboration with Barnsley Hospital) have been engaged in a wide-ranging exercise to collect data about AAC service provision and the prevalence of need for AAC in the UK, by travelling across the UK and talking to specialist AAC services, Speech & Language Therapy services, local authorities, NHS services, schools, colleges, charities and companies, as well as interviewing people who use AAC and their family members and carers.

The researchers have been able to draw on the AAC reports recently completed for governments of Scotland and Wales and to link in with the work that Communication Matters has been leading on standards, outcomes and competencies.

From Autumn 2012 they will start to focus on analysing the data so that conclusions can be drawn and the findings published.

INVOLVING THE AAC COMMUNITY IN RESEARCH

The research team at Manchester Metropolitan University includes a co-researcher who uses AAC who has provided his perspective on the research processes. The researchers held a series of nine focus groups with stakeholders, including people who use AAC, their families, professionals who work with them, researchers and managers. The focus groups were a key input to the design of the AAC Evidence Base website which will make information about AAC available to a wider audience. This participatory approach is continuing as the website is developed. The development cycle includes reviews of the website prototype by stakeholders.

Manchester Metropolitan University has developed the single case study protocol, based on a methodology proposed in the work of Pennington, Goldbart & Marshall (2007). This will provide a mechanism for capturing evidence from best practice in the field of AAC that might otherwise not be published. The protocol has been developed in such a way that it can be used by professionals and people who use AAC as well as by researchers. People who use AAC have reviewed the content of protocol and its usability.

Research Involvement Network member, Simon Stevens (L) with David Morgan

We are looking forward to launching the AAC Evidence Base website and the case study protocol later this year.

THE INDEPENDENT RESEARCH PANEL

The Independent Research Panel has met twice in the past year. The Panel is made up of eight people who represent different interests, including a person who uses AAC, a family member, a commissioner and professionals working in the field. They provide advice to the project and also to Communication Matters about its research activities.

THE RESEARCH INVOLVEMENT NETWORK

We have launched the Research Involvement Network which will support further research into AAC by helping to find participants and co-workers for research projects. The procedures are now in place for reviewing and accepting research proposals and researchers who are interested in using the Network can apply through the Communication Matters website. In the next year we look forward to helping our first research project to find participants. We will also seek to encourage more people who use AAC and more family members and carers of people who use AAC to join the Network.

FINANCE & REPORTING

We have worked within budget during year two and through efficient financial management we have been able to increase the amount of staff time available to the project. We expect to continue to work within the agreed financial plan in year three. There are regular reports to the Trustees and Katie attends two trustees meetings each year. The end of year report has been submitted to the Big Lottery Fund. At our suggestion the trustees have established a Handover Group to ensure a smooth close down of the project and the continuation of the research initiatives created by the project after June 2013.

COMMUNICATION & DISSEMINATION

Two articles about the systematic literature review carried out by the University of Sheffield have been published in academic journals[1] and Communication Matters has written and published online a short lay summary of the first article which has been viewed by over 100 people. The first article was referenced in a key report for commissioners published by the Office of the Communication Champion[2].

There were two presentations at Communication Matters Conference 2011 and in addition presentations were given at a research conference at Manchester Metropolitan University, at a specialist AAC assessment services meeting and at two *Voice for Life* events for parents hosted by Afasic in Leicester and Stockton-on-Tees.

ABOUT THE PROJECT

In October 2009 Communication Matters was awarded a £467,751 grant by the Big Lottery Fund under its research programme for a project entitled *Communication Matters - Research Matters: an AAC Evidence Base.*

Communication Matters is leading the project and working with three research partners. The University of Sheffield and Barnsley Hospital NHS Foundation Trust are researching prevalence of need and mapping service provision. Manchester Metropolitan University is developing the AAC Evidence Base and a case study template.

For more information, contact Katie Holmes, CM Research Manager, at katieholmes@communicationmatters.org.uk

There have been a number of links between the project and initiatives in the field of AAC policy which have contributed to raising awareness of the need for AAC in the UK and increasing understanding of service provision.

We are looking forward to publishing the final report next year and publicising the findings as widely as possible.

We hope the research will provide evidence that can be used to make the case for better service provision as well as enabling people to find the information they need via the AAC Evidence Base website.

The whole project will both leave a legacy for the future for Communication Matters and also become a springboard for new and future research projects. ✻

David Morgan, *CM Research Lead*
Katie Holmes, *CM Research Manager*

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Baxter, S. et al. (2012) Interventions Using High-Technology Communication Devices: A State of the Art Review. *Folia Phoniatrica et Logopaedica, in press.*

[2] Specialised AAC Provision – Commissioning National Services (2011) Office of the Communication Champion & Council, November 2011.

Service user conference

Your Thoughts, Your Ideas, Your Life

OLIVER LEE & CHRISTINE GRIFFITHS
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INTRODUCTION

Service user involvement should be key to all we do (in the health service) and there are many events and conferences around to encourage this and learn how to work more closely together. As speech and language therapists, however, we felt that there wasn't a great deal going on specifically to help involve adults with a learning disability who have significant communication difficulties.

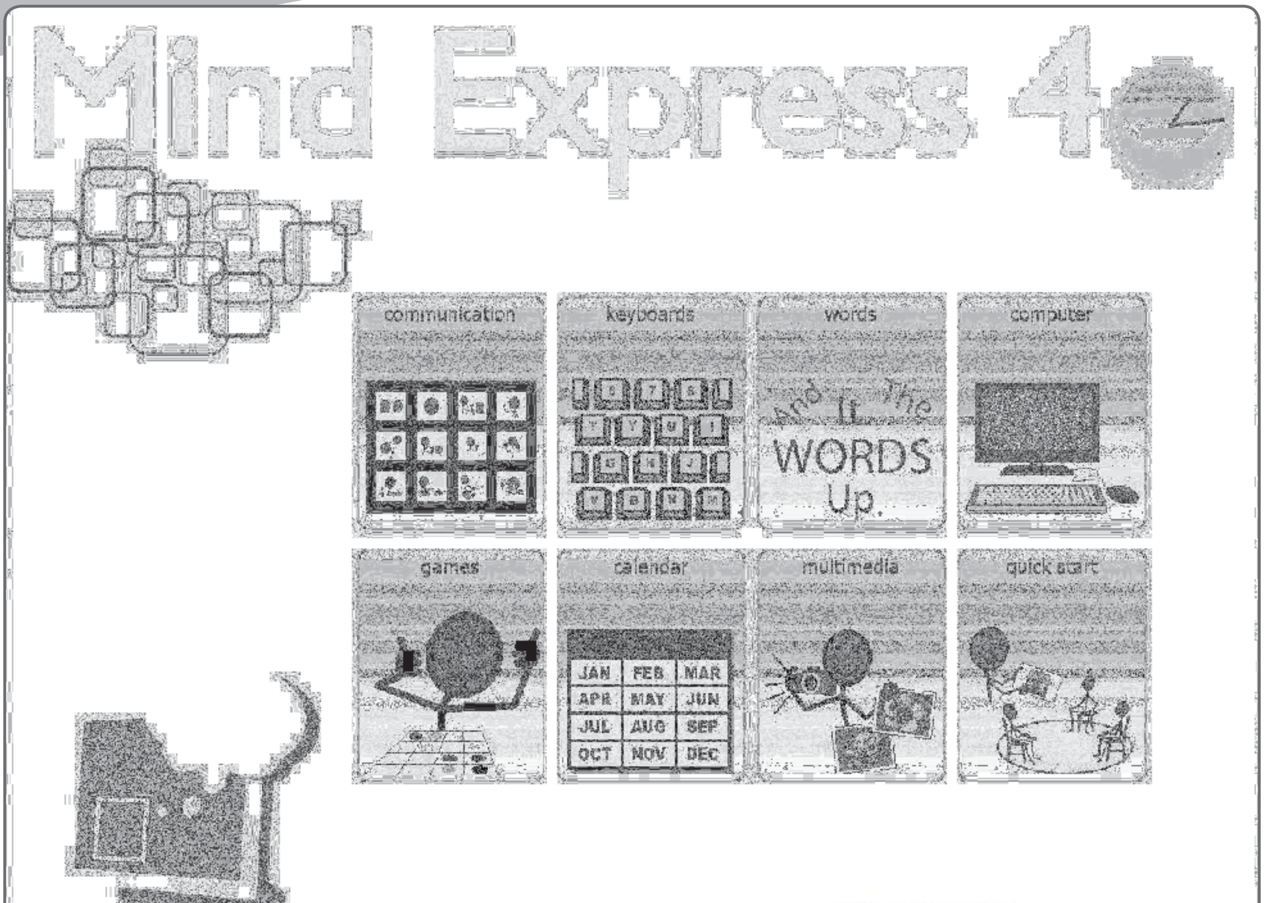
The Speech and Language Therapy department for the Directorate of Learning Disability Services, Abertawe Bro Morgannwg University Health Board (ABMUHB) consists of seventeen qualified SLTs and seven assistants for whom we use the title Communication Development Officers. The Directorate provides specialist services to adults with learning disabilities across a large part of South Wales, from Cardiff to Swansea. All of the SLTs work in multidisciplinary teams within joint health and social care bases. A key focus of our service is service user involvement and there are a number of projects being undertaken within the teams to develop better engagement.

As a profession, communication is key to our work and we are committed to engaging appropriately with service users, and to supporting others to create appropriate environments to support and aid communication. We have spent a number of years developing a training and support package for health staff and other support organisations to facilitate Inclusive Communication environments in the community.

When our SLT department came to look at related resources and tools to support service user engagement and how people are directly involved in their care, we noticed that different tools and working practices had been developed in our own SLT department, as well as by other professionals. This led to us wanting to develop a service user conference to showcase these resources and approaches to support communication for adults with a learning disability, thus enabling the service users to become more involved in with the services they receive. A proposal was put together and sent to Communication Matters, and we were successful in obtaining funding to run the conference.

When looking at the content of the day, we wanted to look at what we and other departments/services were doing to encourage service user engagement at different levels. As information and resources were gathered, it was decided that the main body of the day would consist of four workshops aimed at sharing ideas for strategies to improve active service user engagement at different levels – direct patient carer, primary health, general choices and person centred planning and service engagement.

The conference aimed to demonstrate through active engagement in the workshops some of the things that had been developed either by our own SLT service or by others. We also hoped to learn from service users and their carers about any experiences or advice that made it easier for them to get their views across, and what actually mattered to them.


Mind Express 4
communication
keyboards
words
computer
games
calendar
multimedia
quick start


Mind Express
jabbla

WHO WE INVITED

We wanted the conference to be top heavy with service users and deliberately didn't invite lots of organisation management, although we did have some representation. The majority of those who attended were service users and carers being either paid staff or family members. We invited professional heads of services and some Directorate management so that they could then take the message and information of the days conference back and to put into practice.

Other organisations were invited, and we had representation from Mencap and People First. We also had a member from Learning Disabilities Wales who is leading a Welsh government project to develop a website providing accessible information for people with Learning Disabilities. Representatives from Liberator and Logan Technologies also attended to showcase a range of technology and communication aids.

THE CONFERENCE

When developing the conference, it highlighted the amount of planning and organisation required to hold the event. This included booking the venue, deciding who to invite, making the venue accessible, and food requirements because of the eating and drinking difficulties of some of the participants. This was all achieved on a limited budget, and involved the whole SLT Team in either planning or helping to run the day.

A lot of help was needed in the actual running of the day, from carrying out the workshops, to directing people where to go, handing out resources, organising lifts. Our aim was to make the whole day as accessible as possible, and to not just focus on the work shops.

All of the rooms and workshops had signs and were colour coded, and people were on hand to help where needed. Prior to the event we sent out accessible application forms for individuals to choose which workshop they wanted to attend. On arrival at the event participants were given a pack with information and the agenda for the day. Service users were provided with their own individualised timetables and other accessible information, and support staff and carers were encouraged to enable them to use the packs throughout the whole day. Ticks, crosses and happy/sad picture symbols were used throughout the day to help service users engage during workshops and discussions. Service users could really engage and participate in the day. We encouraged staff and carers to make the resources functional, so some promoting was needed, some times by SLT, and sometimes by service users themselves.

Our SLT department also had a stand to show some of the information that we have developed in our department to support service user involvement. This included accessible therapy goal planning, accessible guidelines for making information easier to understand and advice about holding meetings, etc.

If we hadn't got the little things right the whole day wouldn't have flowed. By spending enough time on the development of resources, it meant that people were able to be involved on the day. This was worth the time taken and it made the day.

People with learning disabilities were integral to the organisation and presentation of the day. We wanted the service user theme right through the day and, where we could, service users were involved, i.e. the food was provided by Vision 21 (a catering organisation employing people with a learning disability); actors from Hi Jinx Productions were involved in the planning and participated in workshop presentations; and a co-presenter with a learning disability working for People First was involved in one of the workshops. Service users were also involved in judging a competition and presenting a prize at the end of the day.

WORKSHOPS

The main body of the day consisted of four workshops entitled 'Our Health', 'Making Choices about Your Life', 'Making Everyday Choices' and 'Having your Say'.

Our Health

In our experience we find that service users can have difficulty engaging in GP appointments; communication is a barrier for both the doctor and service user, resulting in a negative experience. The 'Our Health' workshop explored people's experiences of visiting the doctor.

Bad and good scenarios were acted out depicting a service user visiting the GP. The bad scenario showed the GP talking to support worker and the service user not being listened to with their communicative attempts, making it difficult for them to indicate how they were feeling or what was wrong. The audience was then asked for feedback using ticks and crosses sheets, facial expressions and vocalisations to give their views.

We included a recorded interview with a GP, to give the doctor's view of what it is like if they do not have access to appropriate information about a person's communication, and the difficulty that ensues when trying to involve the individual in the appointment. We then showed the DVD of the Welsh Personal Health Profile and how it might help. This is an accessible booklet which contains information about a person's health and how they can be supported.

A good scenario was then acted out, with the same service user going to the GP, but giving them his Personal Health Profile. The GP then had a better idea of how to effectively communicate directly with the service user rather than just talking to the support worker. This included the doctor's explanation of

what the problem was and how it was going to be treated. It made a considerable difference to the way the service user was feeling and their subsequent involvement in decision-making about treatment. The audience were again asked their views.

A general discussion about going to the GP and hospital appointments happened afterwards, and SLTs shared our accessible resources that have been developed in the Directorate teams for hospital visits.

Making Choices about your Life

The 'Making Choices about your Life' workshop aimed to demonstrate the link between person centred planning and developing a new visual timetable that truly reflected the interests of the service user.

By using Talking Mats beforehand this identified what the service users liked, didn't like or wanted to try out, and also highlighted some health problems they had been experiencing.

We showed two scenarios. The first had no pre-planning, resources used weren't made accessible, and the member of staff led what activities were to go in the timetable. The service user wasn't happy and was frustrated by the outcome.

The second meeting was different. This involved the service user preparing for the meeting, using more accessible tools, such as a Talking Mat to review and talk about activities she did in the week (Fig 1), and changes she wanted to make. They were more involved with thinking about what she was doing during the week, and showed the carers working in a more person centred way, taking into account the person's current health needs.

A Flip camera was used to make accessible minutes of the meeting. However, in a real situation the camera could be used to show a service user examples of new experiences, or the service user could show others things that they had tried.

After each scenario, the audience was encouraged to feedback on how each session used the accessible resources with the tick and cross cards and happy and sad expressions.

At the end, we spent some time looking at some sections from the actor's own Person Centred Plan document. There was some audience participation to identity who else had a Person Centred Plan, and discussed how they can be useful for the service user to identify what was important to/for them, and how they can let carers and others know.

Making Everyday Choices

The 'Making Everyday Choices' workshop was very interactive and was set up to enable service users and carers to try out different ways of making choices through use of signing, switches, pictures and symbols, video cameras and communication aids.

The next part of the workshop demonstrated how the service users can get what they want if their environment is set up to help them. A model of a kitchen had been made and service users were asked to find items when the environment wasn't made accessible.

The service users were then asked again to find items, but this time picture symbols and photographs were used. This really helped to demonstrate how much easier and less confusing it is if an Inclusive Communication environment is used, with rooms and cupboards being labelled. People were then more empowered to find things more easily themselves.

Having your Say

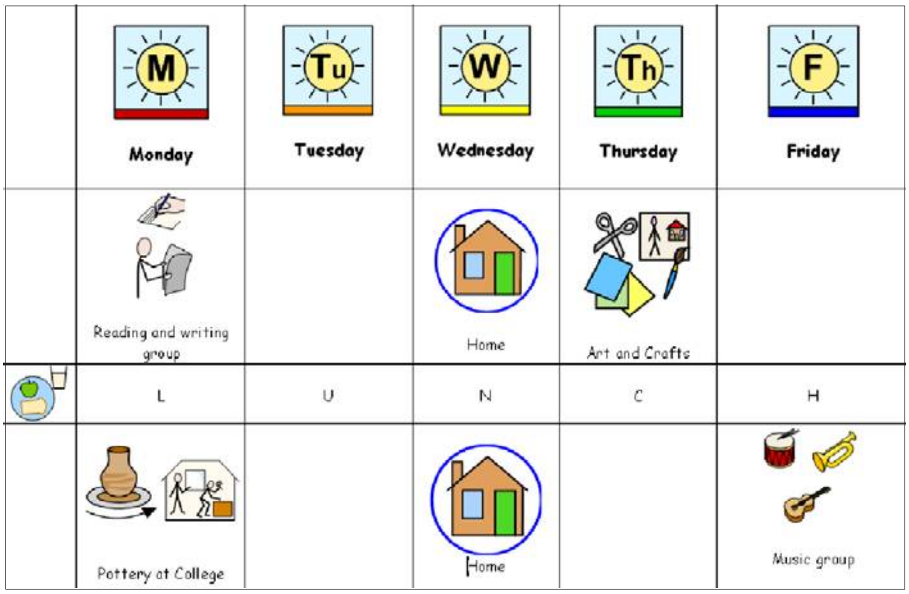
Finally, the 'Having your Say' workshop began with an excellent presentation from a service user working for the South Wales People First organisation. This raised awareness of how it feels to be excluded and not given a voice. This was then followed by examples of holding a meeting.

The first scenario was at too fast a pace with an abundance of jargon so that it was difficult to follow. The second example took the service user's advice and kept the language simpler, showing ways of involving people more.

This was a very powerful presentation and was well received by participants. There was a lot of engagement from the group and it was obvious that this was a subject people felt strongly about.

OUTCOMES FROM THE DAY

We were very fortunate in that our local media students from the University of



	M Monday	Tu Tuesday	W Wednesday	Th Thursday	F Friday
	Reading and writing group		Home	Art and Crafts	
	L	U	N	C	H
	Pottery at College		Home		Music group

Figure 1 Talking Mat showing one service user's activities during the week

Glamorgan videoed the day's events. During the lunch break the film crew captured evaluations of the conference participants. Participants were also filmed engaging in a 'Speech Bubble' activity, which was part of the Royal College of Speech and Language Therapists *Giving Voice* campaign. Service users were supported by carers and SLTs to complete speech bubbles of what communication meant to them. Photographs were taken of these which will be part of the overall collection of material developed nationally. We also decided to hold a competition for the best Speech Bubble, which was judged by one of the actors and professional head of SLT.

Listed below are some of the main outcomes that have come from the conference:

- There was a request made by a service user for a Welsh personal health profile to use at GP appointments and to help with their annual health checks.
- During the 'Making every day choices' workshop there was an activity around choosing a menu. It became clear that one person had not tried a range of desserts and that the carer had assumed that he didn't like them. The plan was for the service user to go home and try these desserts out. We have now learnt that he loves lemon meringue pie!
- During the day there was an interest by participants and SLTs in Talking Photo Books. Since then, a self-referral has been made to acquire one of these, and have also been used more within our department.
- Loans have been requested for the communication aids that were viewed on the day. Use of the communication aids are still ongoing and have been helping promote the range of aids that can be used to support communication.
- The conference has also had an impact on professionals within the directorate, helping networking with other professionals within the directorate who showed lots of enthusiasm following the conference, as well a building links with other agencies outside the directorate, with a representative from a service user organisation requesting access to resources for use in her own training.

CONCLUSION

All of the workshops demonstrated that communication needs to be inclusive; it is about finding out what would help each person, and being prepared. The workshops showed what is achievable if the time if taken to do this. A précis of the day has been put onto DVD and sent to participants and others in the directorate to help raise the awareness of the benefits of improved engagement to a wider audience.

From the information we have received since running the service user conference, we feel that we have achieved what we set out to do. As the conference was run in the East side of the directorate, we are hoping to run a similar event in the West. ✱

Oliver Lee & Christine Griffiths
Speech & Language Therapists

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PROJECTS/PRESENTATIONS

British Institute of Learning Disabilities, Hearing from the Seldom Heard; Project funded by the Department of Health.

Connect - Health Talk Project (2011) Ongoing two year trial to test a resource pack designed to support efficient and effective management of consultations with health professionals where patients have communication difficulties. Becky Moss is the contact person.

Connect - Working Together Project - supported by the King's Fund - explored what it takes to involve people with aphasia in decision making and the day to day business of an organisation. Contact person: Alan Hewitt.

Connect - Communication Access Toolkit - what makes health and social services accessible or inaccessible - 2 day training and toolkit - making communication access a reality.

Connect - Taking Control - Self management project to enable more access for people with aphasia to the expert patient programme.

Connect - Bristol Feedback Project - Training healthcare workers about aphasia - people with aphasia give the healthcare workers constructive feedback about their communication skills.

LDIAG - Participation Roadshow - presentation regarding being involved at a service level (but targeted at the more verbally able people with learning disabilities).

Previous Communication Matters Conference Presentation: Sharon Hambley, Susan Williamson, Francis Sturman 2009 - Inclusive Meetings for People with Learning disabilities (see short abstract on the Communication Matters website).

INTERESTED IN HOSTING A COMMUNICATION MATTERS ROAD SHOW IN YOUR AREA?

The Communication Matters Road Shows are great opportunities to learn all about the latest communication aids and software from some of the UK's leading AAC suppliers. About 10-15 Communication Matters Road Shows are held every year at various locations in the UK - and they are free!

At each Road Show, there are usually 12 to 14 companies presenting. The presentations are given in parallel and repeated five times during the day - participants choose which of the five companies they wish to hear during the day. The current format is: Registration is 9.00-9.25am; the day begins at 9.25am with a short introduction from each company, followed by three sessions in the morning and two in the afternoon, and a short 'exhibition' session after lunch. The day finishes at 3.30pm.

WHAT'S INVOLVED IN HOSTING A ROAD SHOW?

We are always looking for new venues to hold Road Shows, so if you would like to host one in your area, here are a few things to consider. Don't be put off by the long list of requirements – we will offer you a lot of help and advice along the way!

The Venue: We will work with you to find a suitable, wheelchair accessible venue in your area. The cost of venue hire will be met by the suppliers attending.

Catering: The cost of lunch and refreshments will be met by the suppliers attending.

Advertising: To get a broad cross-section of delegates, you will need to advertise the event to speech and language therapists, teachers, social work staff, people who use AAC and their families, voluntary organisations and other professionals involved with communication aids. Communication Matters does not normally pay for the cost of advertising or mailshots.

Bookings: Communication Matters will provide you with a master copy of a flier/booking form to duplicate and send to your local contacts, the local press, professional magazines, local newsletters, etc. Anyone interested in attending has to complete and send the booking form (by post or online) to Communication Matters.

All bookings will be handled entirely by Communication Matters: delegates will be sent a booking confirmation immediately, and joining instructions (map, directions, timetable) two weeks prior to the event.

On the day: You will be responsible for the smooth running of the day, including: setting up workshop spaces, signage, registering delegates (Communication Matters will provide you with literature, a delegates list, name labels and other information).

STILL INTERESTED?

Patrick Poon would be delighted to hear from you - please contact 0845 456 8211 or admin@communicationmatters.org.uk

GOAL! Creating a Resource to Facilitate Client Input to Goal Setting

JULIE ATKINSON, CLAIRE HAYWARD, JULIE SHERIDAN & RUTH WILLIAMS
Access to Communication & Technology, 91 Oak Tree Lane, Selly Oak, Birmingham B29 6JA, UK
Email: julie.atkinson@bhamcommunity.nhs.uk

INTRODUCTION

Access to Communication & Technology (ACT) is the West Midlands regional electronic assistive technology assessment and provision service. Our Mission Statement is "To work with clients and their local teams to assess for and provide techniques and technologies which optimise the potential for communication and control."

As a tertiary service, the way in which we work in partnership with clients and their local teams is constantly being refined to increase flexibility; this is reflected in the different models of service delivered to clients and their local teams.

We strive towards establishing a clear way of enabling clients to input to the formulation of goals. However, given our clients' communication difficulties, this can be challenging to implement. To elicit clients' opinions more robustly, in order to inform our goal setting, ACT have created a goal development resource which can be implemented by the local Speech & Language Therapist prior to referral to ACT.

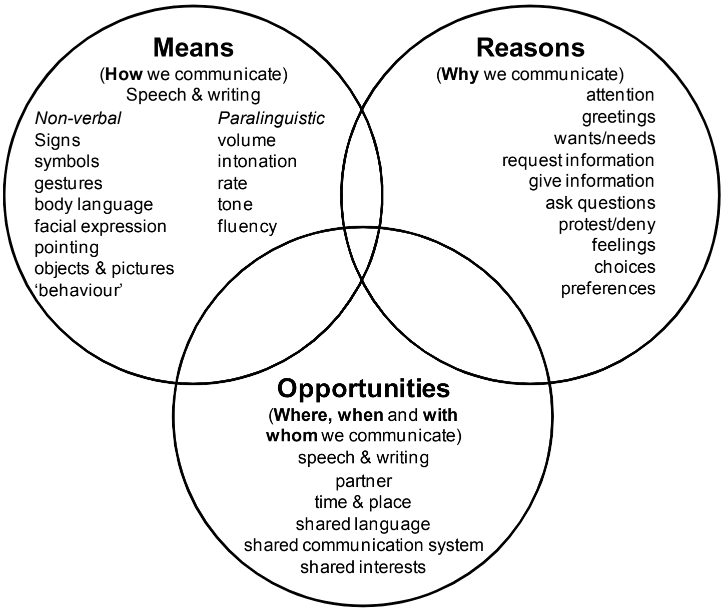

Figure 1 Means, Reasons and Opportunities: The original model

Goal setting is an incredibly subjective area with a great number of variables impacting upon the process. Brewster (2004 p169) cautions "there is always a danger of 'putting words into their mouths' when it comes to interviewing people with learning disabilities" and suggests that "a more fundamental shift is … required, towards accessing views as an ongoing process, rather than regarding an interview as a one-off event".

EVALUATING CURRENT PRACTICE

The West Midlands AAC Care Pathway assessment and implementation documentation is currently used as the basis to make referrals to ACT. This documentation has a section to record clients' goals and the expectations of the local team with regard to how a Voice Output Communication Aid may help support a client's communication – alongside, in addition to, or as an alternative to a low tech system. However, clients' goals are often expressed by the team, with limited specific discussion with the client prior to the appointment.

Working as a tertiary specialist service, ACT clinicians are unlikely to have met the client before the initial assessment appointment. This lack of familiarity brings into question whether it is in the client's best interest to communicate, for any significant exchange, with the ACT clinician. In practice, this sometimes means that the local speech & language therapist or a family member assumes the apparent role of interpreter or advocate. Therapists working as part of ACT or the local team may perceive that advocating for the client is part of their role. However, any person who has a relationship other than voluntary and impartial advocate is likely to have goals and agendas which they may try and exert. Tannous (2000) argues that any paid healthcare professional, or indeed family member, cannot be a true advocate as they lack any external motivating factors, and contends that the label of 'spokesperson' may be more appropriate.

The approach currently taken by ACT could be described as developing a consensus view from a series of spokespeople; this is a recognised approach in meeting the communication needs of people with complex disabilities and helps to alleviate bias (Grove et al 2000). This technique also sits well with the concept of respect for clients, as described by Falardeau & Durand (2002). They contend that acknowledging that autonomy is a goal for some clients, rather than a reality, and that recognising and responding to a person's limitations is just as much a part of respect as recognising their skills. Falardeau & Durand relate this approach directly to clients with significant communication impairments:

"In rehabilitation, clients often have communication problems and difficulties in decision-making. The solution for the therapist is to adopt a low paternalistic attitude, thereby fostering the client's autonomy over the long term". (Falardeau & Durand 2002)

Clients will of course, have varying levels of cognition. Many clients may well be able to understand parts, or all, of the concepts discussed in the appointment. The question therefore remains, how best to support the understanding of clients to maximise their potential to play an active role in appointments?

THEORETICAL FOUNDATIONS

ACT recently hosted two final year Speech & Language Therapy students from Birmingham City University on placement. Project work is encouraged. This year's students have undertaken research into how ACT may better facilitate clients to input into their own goals. This project has culminated in the creation of a resource pack for local speech & language therapists which can be used prior to referral to ACT in order to allow client input to the formulation of their own goals for their AAC systems and use. Lewis (2002 p113) suggests that people with "longer term and personal involvement" (such as a carer or local SLT) should be involved in obtaining clients' views, rather than a tertiary service such as ACT.

The resource created has its base within the principles of Talking Mats, "a low tech framework to help people with severe communication difficulties express their views" (Murphy 1997). Recently, Murphy & Cameron (2008) concluded that "Talking Mats can be an effective communication resource for many people with intellectual difficulty and can help them express their views by increasing both the quantity and quality of information communicated." Their study found that a Talking Mats approach was most beneficial to people with at least 2-3 information carrying word level understanding (i.e. 2-3 key words in a sentence.)

The ACT goal-setting resource has a range of symbols to allow children and adults to explore their 'Means', 'Reasons' and 'Opportunities' (MRO) for communication (Bulpitt, 1989; see Fig 1). This model is used as a foundation to practice for the SLT students at Birmingham City University.

The symbol vocabulary which was developed for the resource was expanded and refined from the MRO model but also incorporating Social Networks Theory (Blackstone & Hunt Berg 2003). Therefore when using the resource, the facilitator has a pre-made, comprehensive vocabulary which draws together two prominent theoretical models to ensure all aspects of communication are considered.

Means refers to *how* the client communicates (based on the West Midlands AAC Care Pathway section 'Modes of Communication'). Symbols for this include: *speech, signing, gesture, facial expression, pointing, symbol communication book, voice output communication aid.*

Reasons refers to *why* the client communicates (based on the West Midlands AAC Care Pathway section 'Use of Communication'). Symbols in this section include (Fig 2): *getting attention, making requests, controlling others, refusing, being sociable, giving information, asking questions, expressing feelings, repairing communication breakdowns, imagining/being creative, learning.*

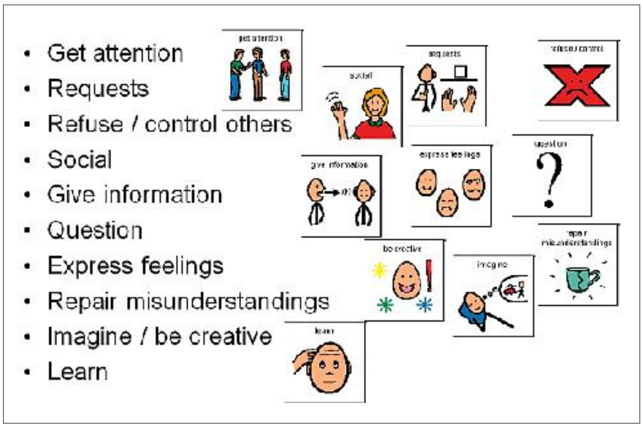

Figure 2 Reasons

Opportunities refers to *where, when* and *with whom* the client communicates (based on the West Midlands AAC Care Pathway section 'AAC Environment'). This section has been divided into two categories, People and Settings. Symbols in these categories include:

- **People** (Fig 3): *parents, children, brothers/sisters, grandparents, friends, teacher, carer, keyworker, speech & language therapist, occupational therapist, physiotherapist, doctor, nurse, neighbours, strangers.*
- **Settings** (Fig 4): *home, school/college, day centre, GP/hospital, shops, respite centre, restaurants, bank, pub, hairdressers, place of worship, telephone, groups, meetings, 1:1 conversations.*

The client is facilitated to rate their 'Means', 'Reasons' or 'Opportunities' by placing the symbols on a Visual Analogue Scale (Fig 5), described by Gould et al (2001) as "a measurement instrument that tries to measure a characteristic or attitude that is believed to range across a continuum of values and cannot easily be directly measured." We have opted for a seven

Figure 3 People

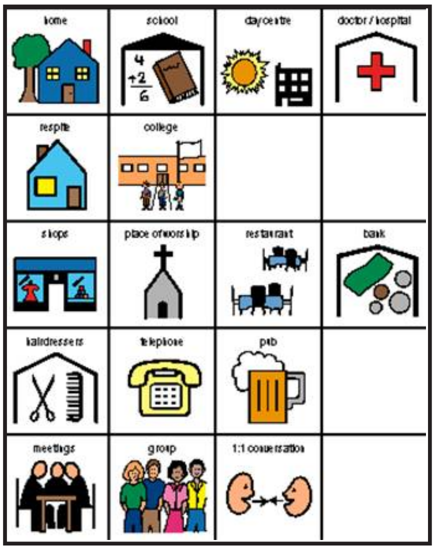

Figure 4 Settings

point Visual Analogue Scale because "there is evidence that the reliability of measures increase with the number of categories offered up to about 7" (Pring, 2006).

Clients and their teams can choose whether to administer the entire resource (which can take up to two hours) or to select the most appropriate part(s). The resource can be administered in a variety of ways:

- The client physically placing the symbols on the Visual Analogue Scale
- A partner providing a physical and/or auditory scan (of the numbers) with the client indicating when their chosen position is highlighted
- The client using eye pointing to indicate their chosen position.

PILOT FEEDBACK

A pilot study involved the resource being implemented to longstanding users of AAC for their comments.

Feedback from clients included: "*I love the idea…because everyone get to know what I am thinking.*"

Carer comments included: "*It's been a bit of an eye opener … I've been with him a long time and it's shown areas we need to work on.*" "*Very informative – more so than I thought it was going to be*" and "*When you see where he's putting those symbols on the board, you see it from his perspective, his difficulties and how we might overcome them.*"

One client (see mat Fig 6) identified concerns about repairing conversational breakdowns therefore vocabulary was programmed into the Voice Output Communication Aid to allow the client to repair breakdowns independently.

Another client (Fig 7) insisted that his Social Worker should be off the rating scale – to emphasise his concerns; the carer said that this would be raised as a concern when they next met the Social Worker.

Figure 5 Seven point visual analogue scale

In the third mat (Fig 8), meetings were rated as more difficult than groups because the focus is on the person using AAC as (s)he creates a message; vocabulary was added to the Voice Output Communication Aid to allow the person using AAC to express their preference for the conversation to carry on whilst (s)he built their message. From this mat, additional messages could be identified to facilitate telephone use, or role play could be used to further develop skills. The client also identified that telephone use was more difficult than Skype; again, strategies for use on the telephone could be put into place.

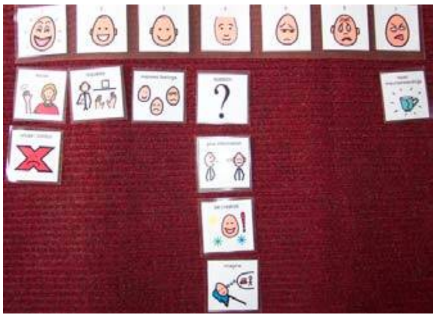

Figure 6 Example mat for 'Reasons'

Figure 7 Example mat for 'Opportunities - People'

Figure 8 Example mat for 'Opportunities - Settings'

MOVING FORWARDS

The next step for ACT is to introduce this resource to local teams for them to evaluate its usefulness. A number of teams have begun to use it, both in the West Midlands and also further afield as a result of hearing the presentation at the CM2011 conference. We would like to see whether other AAC services feel that this type of goal setting approach is useful and would appreciate feedback/comments. ✱

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How Was School Today...? In the Wild

Using a mobile phone to support data collection for automatic narrative generation

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INTRODUCTION

The *How was School today...?* project has successfully introduced a new personal narrative tool for children with severe speech and physical impairments.

The system collects sensor data, voice recordings from school staff and other information. The latest implementation of the prototype system uses a mobile phone to facilitate and expand the data collection. Data now includes photographs that are automatically linked to multi-part voice recordings, and the ability to read 2D barcodes for interaction and location tracking. Data collected with the phone are transferred automatically to a remote server and then to the voice output communication aid (VOCA) of the user.

The system automatically creates an interactive narrative on the user's VOCA that they can edit and use to talk about their school day experiences.

AAC AND PERSONAL NARRATIVE

Augmentative and alternative communication (AAC) can provide access to computerised speech output for individuals who have little or no speech and varying difficulty in understanding language. Computer-based speech generating AAC devices which provide access to pre-stored words, phrases and sentences are well suited to communicate needs and wants (such as *I am thirsty*). However, they do not support more complex interactions such as conversational narrative (*guess what happened to me today*) and social dialogue (e.g. pub chats about football) very well. Not only are these interactions essential for building vocabulary and general language acquisition, they also form an essential part in the process of making and sustaining friendships and other social relationships. Indeed, social isolation is a major quality-of-life issue amongst people with communication impairment (Bercow 2008).

Figure 1 Phone, name badges with QR code (top) and RFID tag (bottom, tag on back of badge), tagged object ("Post Play Set", round tag visible in top left corner of packaging)

Personal narrative is a vital type of interaction for social communication. By talking about our personal experiences we translate our knowledge into a narrative (McCabe and Peterson 1991), helping us to shape our experience (Quasthoff and Nikolaus 1982). Additionally, by telling and retelling, structuring and restructuring our personal stories we are able to reflect on our life to help us develop a sense of self (Polkinghorne 1995). Sharing stories is a major part of both finding new and maintaining present relationships and friendships.

Our goal is to develop AAC tools that support storytelling and social dialogue. As a step towards this vision, we constructed a proof-of-concept system which helps children with communica-

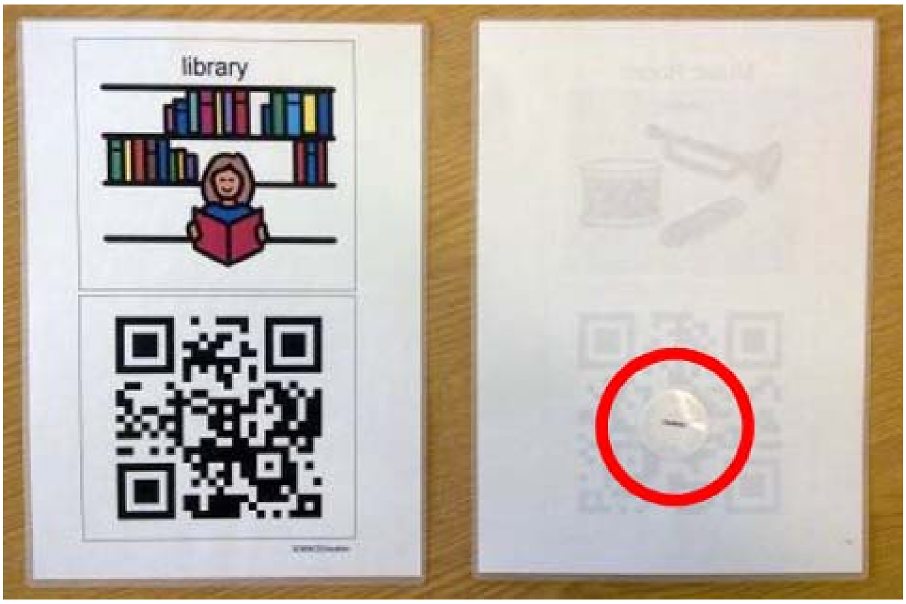


Figure 2 Room signs with QR code (left) and RFID tag on its back (right)

tion disabilities to construct and tell stories about their day at school (Black, Waller, Reiter and Turner 2009; Reiter, Turner, Alm, Black, Dempster and Waller 2009). We deployed sensors to track the children's location, activities and interactions, created a natural language generation data-to-text system (Reiter 2007) which generated a draft story from this data, and built tools which allowed the children to edit and interactively narrate the stories.

DATA COLLECTION USING A MOBILE PHONE

Feedback from the initial prototype evaluation (Black, Reddington, Reiter, Tintarev and Waller 2010) has led to a modular system structure to allow for easier and extended data collection. All data for story generation are now collected by using a mobile phone. The phone is equipped with a microphone for voice recordings, an RFID (Radio-frequency identification) sensor for interaction tracking using RFID tags on staff cards and objects (e.g. teaching tools and toys) and a camera that can be used for taking photographs or images of barcodes for interaction and location tracking (Fig 1).

During the evaluation of the system two participants carried the phone with them during the school day to allow staff to collected data. The phone automatically transferred data collected to a remote server for story generation via the 3G mobile phone network. In a first prototype setting the generated story utterances and photos were sent manually via email to the researcher who updated the VOCAs used by the participants to enable them to tell staff and parents about their day at school (Fig 3). The final prototype was able to automatically update data on the VOCA. Parents at home were also able to collect data (voice recordings and photographic images) to allow the participants to share experiences and stories from home.

The following data were collected:

Location tracking of the user. Rooms in the school that were accessible to the participating students, such as classrooms and lunch hall, displayed a sign with a QR code (and RFID tag for backup, Fig 2). When the participant entered a room during a time that was not scheduled in the timetable (e.g. going into the hall for a concert) staff used the camera in the mobile phone to scan the barcode.

Interaction tracking of the student. Staff and peers at the school where given name badges that either contained an RFID tag or a QR code (Fig 1). The QR code is scanned in the same way as the location barcode. The RFID tags are scanned by the holding the mobile phone to the name badge to allow the built in sensor to detect the tag.

Voice recordings. Staff recorded multi-part voice recordings (similar to using a Step-by-Step), which were linked to a photograph taken at the same time with the mobile phone (Fig 3). This supported easier access to the recordings on the VOCA as the photograph became the label to retrieve the recordings. The participating students could access the recordings on the phone for immediate use in the school (e.g. to tell the class what had happened during a therapy session) either using the phone keypad or a switch that was attached to the phone.

EVALUATION

The evaluation focused on the usability of the mobile phone component of the system. The VOCA interface was not evaluated during this project due to time constraints. Two boys, aged ten and seventeen, were recruited. Peter has athetoid cerebral palsy, uses a wheelchair and switch access to technology. Martin has a chromosomal abnormality

Figure 3 Mobile phone with recording interface (left), photograph taken, and VOCA interface (right)

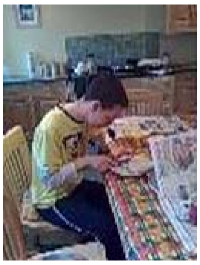
	Photographic Image	Voice Recordings
1		*Message 1: "I have just come back from swimming this morning I had good fun."* *Message 2: "I started off getting weights put on my legs so I could practice walking in the pool"* *Message 3: "Then I get the helmet on and the weights are taken of and some floats so I can swimming on my own which I like doing.* *Message 4: "When I was swimming so first of all the funniest thing of the day was when _____ (peer) came over and tried to give me a big kiss."*
2		*Message 1: "Dad says he's going to have to phone Rolf because he can't hear my messages from school. He thinks the speaker's not working."*

Table 1 Examples of multi-voice messages

and is ambulatory. Neither boy has functional speech. Both have some degree of intellectual disability.

OBSERVATIONS

Staff were asked to keep the mobile phone with the participants during the school day. After school the mobile phone was sent home with both participants. Martin carried his mobile either on a lanyard around his neck or the phone was carried by a member of staff. Peter's phone was usually placed in the cradle on his tray (on standing frame or on lap tray of wheelchair) allowing him to access messages via switch, or a member of staff carried the phone.

The examples in Table 1 show multi-voice messages recorded on both participants' phones. The first 'story' relates an experience while the second 'story' was used by a parent to inform staff and the research team about use of the system.

FEEDBACK

After the evaluation, feedback was gathered from participants, their parents and school staff, using interviews and questionnaires.

Feedback from school staff

14 questionnaires were completed by staff in both participating classes. The majority (13) used the phone (recordings, photographs, swiping, QR). Of these, half (7) found the phone easy to use; 3 rated the phone as "not easy" to "very difficult" to use; and 4 gave no feedback. In general staff liked the phone but usability was an important issue which was exaggerated by the fact that the prototype still had some software bugs.

Staff in general noted greatly improved communication with home. The impact on participants' enthusiasm to share stories was mentioned. Staff reported that participants wanted to use the phone immediately on arriving in class to share stories from home. They actively sought contact with staff outside the class to tell them their story.

Feedback from participants and their parents

Both participants enjoyed using the mobile phone for sharing personal narratives. However, in a post evaluation semi-structured interview, Peter (who had just been equipped with an eye gaze communication device) indicated he did not like the mobile phone because it contained the wrong stories – things he didn't want to talk about. He stated a preference for the eye gaze system and hoped eventually to be able to choose his own words.

Parents stated they didn't find using the mobile phone "too difficult" to use. They liked the functionality to add photographic images to the message and were interested to know about their child's activities in school.

NEXT STEPS

This work is part of a series of projects investigating ways to support narrative in AAC. This study showed the potential of using a mobile phone to collect data for subsequent automatic story generation and work is currently under way to take this idea further. ✱

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We would like to thank DynaVox Inc. for supplying the Vmax communication devices to run our system on and Sensory Software Ltd for supplying us with The Grid 2 VOCA software to enable the manually prepared access to the narratives.

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Narrative Use in the Care Environment

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"When people think I'm stupid, I tell them my story" – Robert, 55

We are our stories. It is by telling our story (or narrative) that we share who we are with others. It is by telling our story that we shape our identity. It is by telling our story that we are more able to understand ourselves and more able to cope with changes in our circumstances during our lifetime (McLean, 2008).

People who cannot share narrative for whatever reason may face difficulties in building relationships and fitting into communities (Bercow Report, 2008), presenting a real risk of experiencing social isolation.

People with Severe Speech and Physical Impairments (SSPI) who use augmentative and alternative communication (AAC) face difficulties in sharing narrative (Waller and Newell, 1997). One of the reasons for this is the inherent difficulty in sharing narrative. Narrative is a complex linguistic skill and is developed from a very early age using scaffolding support, a great deal of practice and being surrounded by storytelling.

This is a challenge for people with SSPI who may spend many of their early years learning to share needs based information (e.g. *"I'm hungry"*) on complex AAC systems. This means there is often little time for developing narrative skills. In addition, AAC devices are not best suited to storytelling, despite the fact that a story will often be repeated. It is often difficult to capture stories – they tend to emerge during conversation and seem to vary in the way they are told.

Even if stories are stored on an AAC device, finding a story can present challenges due to the shifts in topics over the course of a conversation. Stories are often stored as monologue narration on AAC devices, limiting the potential for interactive conversation.

Finally stories are usually 'held' by family members/carers; this presents a problem when the story 'guardians' are not around to relate stories on behalf of the non-speaking individual.

The CHRONICLE project aims to create narrative support for adults that will help to elicit lifelong narratives, help in retrieving narratives and facilitate interactive conversation. To do this, the project will build on previous research and develop and evaluate a narrative AAC software system. However, before any software can be developed, there needs to be an understanding of how adults who use AAC and their speaking peers currently tell stories.

BACKGROUND

There is little research available on the use of narrative by adults who use AAC. Bloch (2004) set up video recordings on conversations between adults with communication impairments and verbal communication partners. Bloch investigated how AAC could be used to help in communication breakdowns with adults with Dysarthric speech. Luo (2008) asked adults who use AAC to share a story with a communication partner; the study found that AAC could share stories but often used residual speech to do so.

To date, we know of no study which has examined the differences in narrative sharing between adults with SSPI and their peers in day and residential care centres. Murphy (1998) looked at communication in a care centre as a whole, but did not look specifically at story telling.

This is an important comparison to make in this project, as an understanding of narrative use in the environment will be crucial in producing a good piece of software.

METHOD

The purpose of this study was to understand how adults (speaking and non-speaking) share narratives within their community. The objective was to identify the requirements for narrative support through observation of how residents in a day and residential care centre in Scotland communicated. This observation employed ethnographic techniques.

Ethnography refers to a form of research in which the researcher becomes embedded in the environment they are studying. In this study the researcher spent two months in the centre and over this time become accepted as a member of the community. In order to integrate into the environment the researcher volunteered in activities and assisted staff in setting up and clearing away.

The first week of the study involved passive observation and allowed the researcher the opportunity to develop an understanding of how the care centre operated and to identify potential participants for the study. The following seven weeks were spent observing and recording communication in the environment.

The participants were five adults who used AAC (two female and three male) and five adults with functional speech (one female and four male). The participants were representative of the environment and all had some level of physical disability and learning disability. Seven of the participants were able to provide informed consent using a modified consent process (Balandin et al., 2006) and were given a participant information sheet to keep.

The other three participants required parental consent to take part; all of these participants gave verbal assent. During the study one participant from the functional speaking group decided to withdraw from the study after 30 minutes of recording. A replacement participant was then invited to participate.

In order to record the conversations in which the participants engaged, a directional Dictaphone was fitted via a mount to the wheelchairs of nine of the participants and to the walking frame of one participant. The dictaphone had a large button which could switch the recording on and off and a light was set to flash when the device was not recording. Participants were shown how to switch the recording on and off. The researcher and a member of the staff at the centre ensured that the participant had the control over what to record. Participants were audio recorded for a period of five hours over 1 or 2 days.

Participants were encouraged to go about their normal day to day tasks, switching the dictaphone when they could do so. All of the recordings included at least one meal time and at least one group activity. Initially participants reported feeling very aware of the dictaphone:

**P1: remember ‘G’ that’s on*

In most of the cases, after half an hour participants seemed to forget that the dictaphone was there and would act similarly to the way they had been observed behaving in week one.

Following the observation period, the recordings were transcribed and anonymised. The transcripts were preliminary coded and examined for evidence of narrative use. A random sample of 10% of the transcripts was then blind coded by a second researcher.

RESULTS

There was limited storytelling. Only three participants told stories at any time. Two were AAC users; in both of these cases this narrative sharing was prompted by a communication partner. One AAC user created the story during the course of the conversation. The other AAC user shared stories on two occasions, once as a monologue and one during the course of the conversation. The participant with functional speech was not prompted to share a story and told a story for thirty minutes. It is interesting to note that the story that was shared by the participant was shared as a monologue and appeared to be told as rote from memory.

IMPLICATIONS FOR PROJECT

The preliminary findings of this study reflect previous work with children: that there is limited time in the environment for storytelling; participants were unused to telling stories; and that staff and other communication partners need assistance in being involved in the storytelling process (Grove, 2011).

The study also appears to show that adults with functional speech also struggle in telling stories and could benefit from developing their storytelling skills. As a result of this, a regular time has been established in the centre’s weekly schedule for a story telling group. This group has a dual focus, it assists with the design plans for the software while at the same time encouraging peer-to-peer interaction (Prior et al., submitted).

Further information and updates on the project’s progress is available at *http://chronicle.computing.dundee.ac.uk* ✻

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Starting from Scratch

Setting up an AAC assessment service for children in Cornwall

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INTRODUCTION

An AAC assessment service for children in Cornwall was jointly commissioned by Health and Cornwall Council in September 2009. The team consisted of the county AAC officer, Anne Williams (employed by Cornwall Council for one day per week) and a speech and language therapist, Alison Webb (employed by Cornwall Partnership Trust) for one day per week.

We realised early on that the only way we could provide an efficient service was to involve the child's local team – the speech and language therapist (SLT) would have the key role. Therefore we decided to only accept referrals from the child's speech and language therapist, who would be participating in the assessment alongside the Assessment Team. This placed pressure on the already stretched community services. Some children referred were only receiving an SLT session once a term.

As technology was evolving so quickly we did not invest in a pool of equipment to loan, but relied on trialling equipment from the suppliers. As we started to recommend more mainstream equipment, such as iPads and touch screen tablets, this became more difficult, and we would have benefitted from a small store of these items for demonstration and loan purposes.

An AAC Assessment Service had been piloted in Cornwall five years previously, but dissolved after eighteen months due to lack of funding. We spent three months devising referral guidelines and forms for our referral pack based on the forms previously used in the service and the Background Information forms devised by the ACE Centre.

We felt that video was a vital part of the assessment, but this proved difficult for the community therapists to supply, due to lack of access to video cameras, and IT difficulties with downloading onto the NHS drives, or onto disks.

The earlier referrals to our service did not meet our entry criteria (see Appendix 1), mainly because of lack of a robust low tech communication system in place, support from the school or families, or experience of speech output devices such as Clicker 5 software or BIGmacks. It became evident that there was a need to help the community SLTs to develop their undertsanding and use of these systems. We took on two or three of the referrals to help the SLTs work through the skills required to reach our criteria. We also provided each clinic setting with some mid tech aids, such as BIGmacks and iTalk2 aids, and training in programming and using them. We have since run a rolling programme of training for the community SLTs.

BARRIERS TO THE PROJECT

- Multi-Agency working: we had difficulty sending emails and correspondence to one another as the two systems did not 'talk' to one another; we could not share files; we did not have a base to keep equipment and sometimes did not have the piece of documentation we needed in the right place!
- Lack of time.
- Lack of resources: no admin support or equipment.
- Lack of Occupational Therapy (OT) expertise: many of our clients had not seen an OT at all.
- Lack of a team leader with some strategic overview.
- Inappropriate referrals (see above).

WHAT WE HAVE CHANGED OVER TIME

Referral system

We have become much stricter with our criteria, and use a triage system to accept or reject referrals. The system is now much faster and children can expect to complete an assessment and receive their aids within a shorter timescale.

Documentation

We have scaled down the background information form and made it clear to the community SLTs that other people can complete certain sections.

Service Pathway

We have revised our service pathway to conform with National standards, in particular adhering to timescales and informing people of those timescales in advance.

The team

It now consists of: Team Leader, *Mel Meadows*; SLT, *Alison Webb* (one day per week, Cornwall Partnership Trust); AAC Officer, *Anne Williams* (one day per week, Cornwall Council); and OT, *Ann Nicol* (two days per week, Royal Cornwall Hospitals Trust).

WHAT WORKS

- Casework meetings
- Objective sheets
- Triage
- Drop-ins
- SLT involved
- Programmer identified
- Equipment list
- Team leader
- Discharge from Team
- Three heads are better.

WHAT DOESN'T WORK

- Not having a loan store
- Only having one day a week
- Video storage
- Cross agency documents
- Not having an overall leader
- Having two people with the same name/initials! ✱

Alison Webb
Speech & Language Therapist

APPENDIX 1 - CRITERIA

Entry Criteria

The child is identified as requiring a high tech communication aid and is active on a Speech and Language Therapist's caseload.

The therapist must provide evidence of (including video):

- Comprehension level above expressive ability.
- A clear and demonstrated ability to understand cause and effect (e.g. purposeful use of switches, eye pointing, verbalisation, body language).
- Intentional communication (e.g. Charlotte Child Communication Development profile).
- Reciprocal turn taking in gesture or sound, even if at a basic level.
- The ability to generate one form of consistent and reliable movement with e.g. hand, eyes, foot.
- Communication system in place (e.g. chart/books/signing) and being used effectively across two settings.
- Experience of appropriate use of a speech output device, e.g. BIGmack, Clicker, GoTalk.
- Firm commitment from parents/carers to support AAC, e.g. in the form of an AAC home/school agreement.
- The child has an up-to-date communication passport in place.

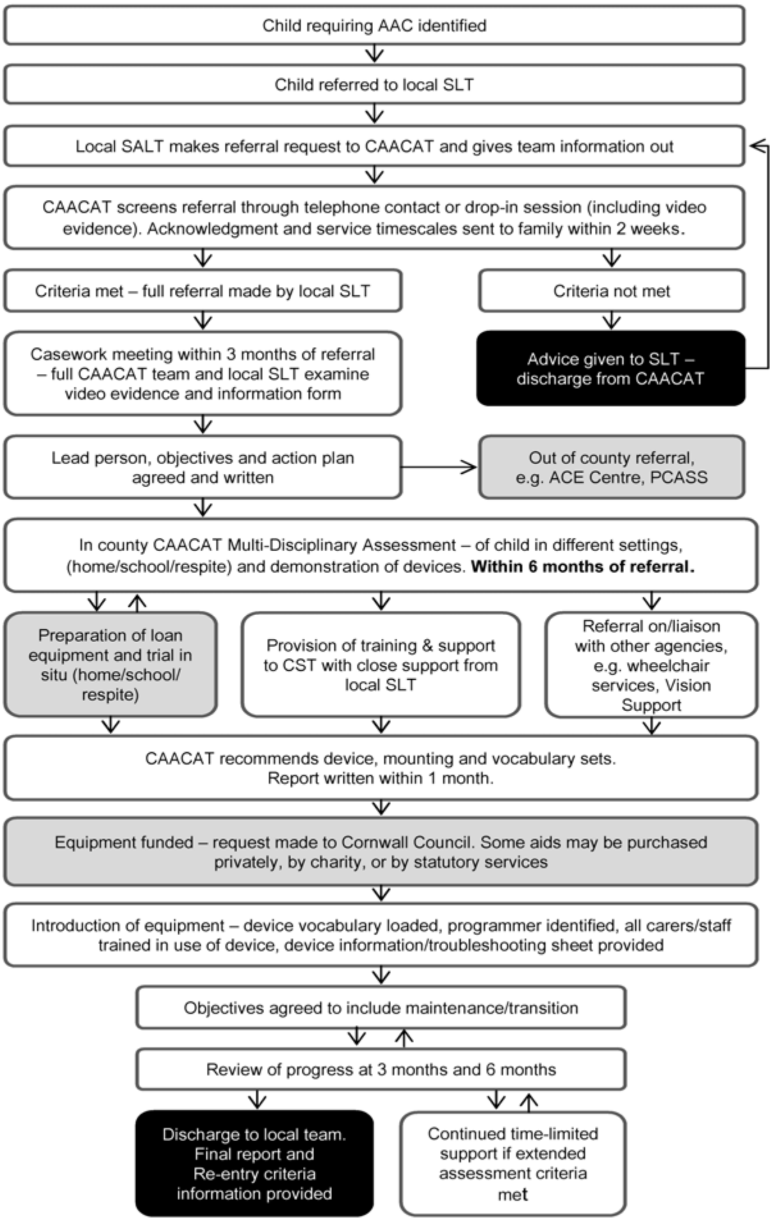
Re-Entry Criteria

1. If the young person's initial referral was rejected because the criteria were not met, a re-referral will be accepted if there is clear evidence that the criteria have now been met.
2. If the young person has been through the CAACAT Care Pathway and has been discharged, a re-referral can be made if:
   - Access has changed (e.g. if seating, mounting has changed, or physical skills have altered).
   - The equipment needs to be replaced (hardware/software) – it no longer meets the young persons's needs; the equipment has become obsolete and cannot be repaired;

continued overleaf...

APPENDIX 2

CORNWALL AUGMENTATIVE COMMUNICATION ASSESSMENT TEAM (CAACAT) CARE PATHWAY



the young person has a progressive condition.
- The young person is transitioning from Primary to Secondary Education.
- There is a sudden, unplanned change to the Child Support Team, i.e. changes in personnel, e.g. 1:1 support, SLT.

Extended assessment Criteria

The Young Person will normally be discharged back to the local team following the six monthly review.

A period of extended assessment may be agreed if:

- The objectives agreed at the assessment are no longer appropriate and new ones need to be agreed (i.e. the child has made rapid/no progress).
- Access has changed (e.g. if seating, mounting has changed, or physical skills have altered).
- If the equipment needs to be replaced (hardware/software) – it no longer meets the young person's needs; the equipment has become obsolete and cannot be repaired; the young person has a progressive condition.
- If the young person is transitioning from Primary to Secondary Education.
- If there is a sudden, unplanned change to the Child Support Team, i.e. changes in personnel, e.g. 1:1 support, SLT.
- If further training is identified for members of the CST.

Exit Criteria

- The high tech AAC device is being used functionally and consistently in two settings.
- An AAC device plan is in place, which means that the local team know how to programme, troubleshoot and adapt the device as needed.
- The child has transitioned into Adult Services with our support.
- A final report and re-entry criteria has been provided.

JOINING COMMUNICATION MATTERS & ISAAC

What is Communication Matters?

Communication Matters *is the UK Chapter of ISAAC (International Society for Augmentative and Alternative Communication), so members of Communication Matters are also members of ISAAC.*

Our Vision: *A world where all individuals have a right to a 'voice' through the provision of equipment and ongoing support services.*

Our Mission: *Communication Matters values people who use any form of communication and promotes the individual's right to participate in all aspects of life by using their most appropriate means of communication to express their thoughts, feelings, needs and desires.*

What are the benefits of Membership?

Members of Communication Matters receive:

- *The Communication Matters Journal three times a year.*
- *Reduced rate at Communication Matters Study Days.*
- *Reduced delegate rate at the CM National Symposium.*
- *Regular electronic newsletters with the latest news in AAC developments, Road Shows, study days and more.*
- *Access the members' area of the CM website.*
- *All the benefits of ISAAC membership.*

How do I become a Member?

You can become a UK or Overseas member of Communication Matters (and therefore of ISAAC) by contacting: **Tel: 0845 456 8211 E: admin@communicationmatters.org.uk www.communicationmatters.org.uk**

If you wish to become a member of ISAAC directly or subscribe to this Journal, please contact: ISAAC Tel: +1 416 385 0351 info@isaac-online.org www.isaac-online.org

What is ISAAC?

- *ISAAC stands for International Society for Augmentative and Alternative Communication.*
- *ISAAC is a big international organisation that focuses on AAC.*
- *ISAAC was formed in 1983 and has over 3,600 members.*
- *ISAAC members live in more than 50 countries around the world.*
- *There are ISAAC Chapters in Australia, Canada, Denmark, Finland, French-speaking Countries, German-speaking Countries, India, Israel, Italy, Netherlands-Flanders, Norway, Sweden, UK and USA.*

ISAAC's Vision: *AAC will be recognised, valued and used throughout the world.*

ISAAC's Mission: *To promote the best possible communication for people with complex communication needs.*

What does ISAAC do?

- *Advocates for augmented communicators & their families.*
- *Supports the use of AAC around the world. This includes countries that do not know about AAC.*
- *Has an exciting awards & scholarship program for members.*
- *Encourages the development of AAC products & services.*
- *Produces a series of books for people involved in AAC.*
- *Has an international conference every two years.*
- *Sponsors a peer-reviewed scientific journal – Augmentative and Alternative Communication (AAC). Visit the website at: www.isaac-online.org/en/publications/aac.html for more details.*

What do ISAAC members receive?

- *Full access to* ISAAC Information Exchange, *an international resource for sharing knowledge, experiences & perspectives on AAC.*
- *An International Directory with a list of all ISAAC members.*
- *ISAAC members can buy the AAC Journal at 54% discounted rate.*
- *ISAAC members can attend ISAAC conferences and meetings at 15% or more discounted rate.*

Possible New Ways of Scanning for Switch Users

JORIS VERRIPS
Email: j.verrips@planet.nl

Some people depend on switches to communicate with the help of synthetic speech and a computer. Commonly, they have a neurological condition such as cerebral palsy or amyotrophic lateral sclerosis. Row-column scanning is used often, but is inherently slow, therefore text input with switches can be quite frustrating.

In this article, two alternatives are compared experimentally with a copy task, using three able-bodied test subjects:

(i) *Oriented Scanning* requires few clicks but significant visual attention.

(ii) In *Alternative Morse* Code most consecutive characters have related codes, that are displayed on screen, but these codes have to be learned.

THE PROBLEM

How to input text at a high rate with a single switch, and by a method that would be rapidly learned and would be error tolerant as well, has been called 'the single key challenge' (MacKenzie, 2009). The 'input rate problem' (Alm, Todman, Elder and Newell, 1993) is a bit more general, includes other access methods, and has been studied for a long time in Augmentative and Alternative Communication (AAC).

Morse Code, defined in 1836 by Vail, and widely applied until about 1960, *almost* solves this problem because it is fast[1]. However, Morse Code is neither easily learned nor is it error tolerant, as many a former boy scout can testify. One might simplify Morse Code and throw out codes that are hard to learn. This is the approach of Oriented Scanning that presents the result in a scanning matrix.

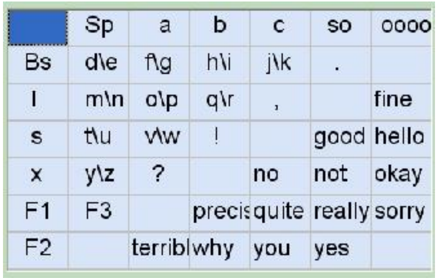
One might also maintain the code but change its assignment to the alphabet, to facilitate learning it. This is the approach of Alternative Morse Code, that can be displayed on screen as well. Both techniques might be helpful for print-disabled switch users, might be usable elsewhere and are described below.

The two techniques were compared with a copy task employing two switches and three different able-bodied test subjects.

ORIENTED SCANNING

Oriented Scanning can be operated with a single switch that must be clicked for vertical movement and held down for horizontal movement, usually accompanied by acoustic signals. Using two switches feels more natural; one switch effects a movement Down, and the other effects a movement Right.

In the scanning matrix of Figure 1, ten cells have *two* distinct meanings each. The cell labelled 'd\e' reads 'd' when accessed from the left with Down Right and Pause. The same cell means 'e' when accessed from above with Right Down and Pause. One might say that these cells are *oriented*, whence the name Oriented Scanning, a variant of active row-column scanning[2]. This trick appears to be new and is combined with stored words and with selective delays, as detailed below.



▇	Sp	a	b	c	so	oooo
Bs	d\e	f\g	h\i	j\k	.	
I	m\n	o\p	q\r	,		fine
s	t\u	v\w	!		good	hello
x	y\z	?		no	not	okay
F1	F3		precis	quite	really	sorry
F2		terribl	why	you	yes	

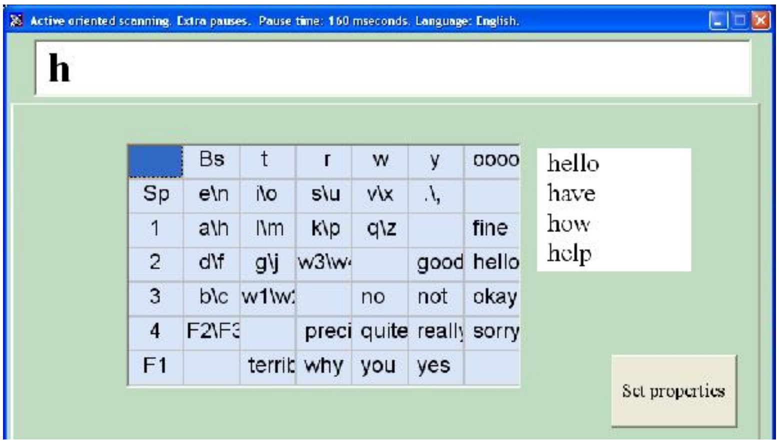
Figure 1 Oriented Scanning with a focus that is moved by switches; Bs=Backspace, Sp=Space, F1 to F3 speak and edit a line of text

To select 'm' with the display shown in Figure 1 requires Down Down Right and a Pause of, say, 240ms (milliseconds). In the same circumstances, to select 's' will require Down Down Down and a Pause of 400ms. Pauses are 66% longer on the margins, where the selection direction may change. Long codes such as 'j' or 'k' are more error prone and have a longer pause as well. Selection sequences or codes consist of a series of Down, followed by a series of Right, or the reverse, followed by a pause, and including empty series.

---

[1] *In the past, professional telegraphers achieved rates over 40 words per minute. Such rates seem impossible to achieve in AAC and should inspire research into Morse Code.*

[2] *Active (or 'step') scanning means that a switch click moves a focus, unlike passive (or 'auto') scanning where the focus is moved by the software and changes direction or stops (and reads a character then starts anew) by clicks. Many variants of scanning exist and for some users, active scanning may be slightly faster than passive scanning.*



Active oriented scanning. Extra pauses. Pause time: 160 mseconds. Language: English.

h

	Bs	t	r	w	y	oooo
Sp	e\n	i\o	s\u	v\x	.\,	
1	a\h	l\m	k\p	q\z		fine
2	d\f	g\j	w3\w		good	hello
3	b\c	w1\w		no	not	okay
4	F2\F		preci	quite	reall	sorry
F1		terrib	why	you	yes	

hello
have
how
help

Figure 2 Oriented Scanning with text prediction after ‘h’, selected by Right Down Down; Down Down Down Down will now select ‘help’, the fourth word in the prediction list

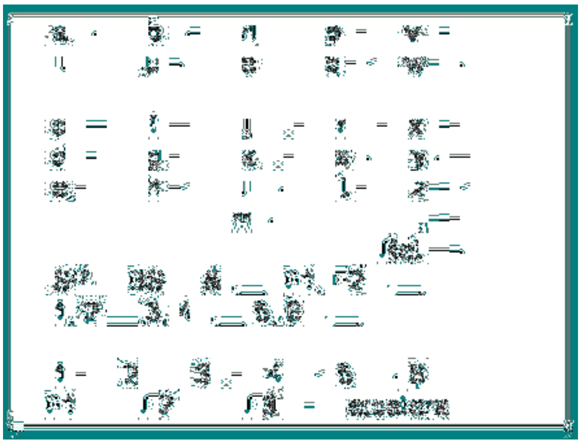


Figure 3 Alternative Morse Code

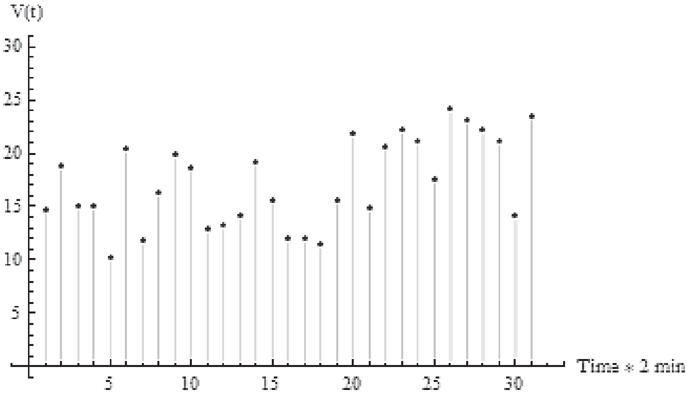


Figure 4 Input rate with Oriented Scanning by the first test subject (MN)

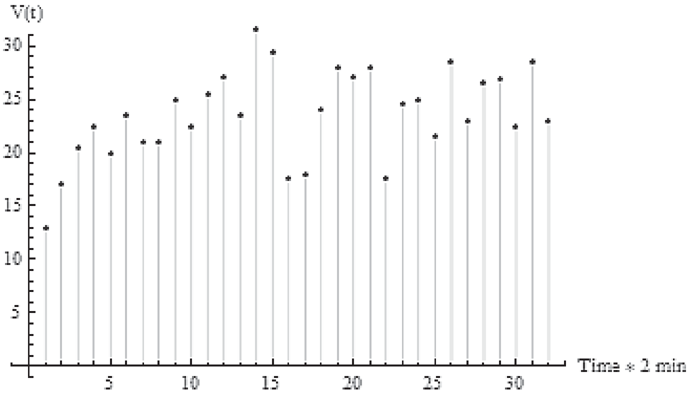


Figure 5 Input rate with Alternative Morse Code by the first test subject (MN)

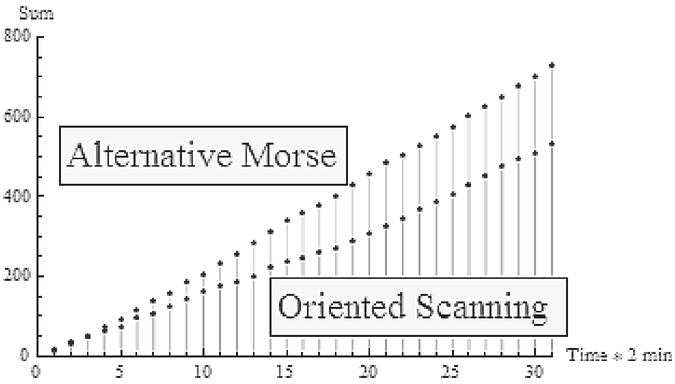


Figure 6 Summed input rates with Alternative Morse Code and Oriented Scanning by the first test subject (MN)

Test subject	Chars. per minute with Oriented Scanning in first hour; SD; total Backspaces	Chars. per minute with Alternative Morse Code in first hour; SD; total Backspaces	Average with Oriented Scanning < Average with Alternative Morse Code	Token test, alpha with OS[i] > AS[i]
1 (MN) AS, OS, AS 30 mins AS, 2x30 mins OS, 30 mins AS	*17.2; 4.1; 162*	*23.5; 4.2; 159*	*1*	*P<0.005*
2 (MB) OS, AS	*23.4; 4.8; 175*	*28.3; 3.6; 127*	*1*	*P<0.005*
3 (JvD) OS, AS, OS, pause time = 260ms	*16.7; 3.1; 156*	*21.1; 4.66; 109 did not correct all errors*	*1*	*P<0.01*

Table 1 Average input speeds; Standard Deviations; number of Backspaces; and some statistics (OS = Oriented Scanning; AS = Alternative Morse Code)

Subject	*Comments*
1 (MN)	*Felt pause time too short (adapted to 260ms after 30 minutes). Prefers Alternative Morse Code because "feel distracted by the moving focus of Oriented Scanning".*
2 (MB)	*Prefers Alternative Morse Code because "dislike having to search correct path before you start to select".*
3 (JvD)	*Prefers Alternative Morse Code because "it automates more easily".*

Table 2 Comments of test subjects

Figure 2 shows the display when text prediction is activated. Here the upper left triangle contains 27 cells with 45 different items that can all be selected with at most six clicks and one pause and that includes numerals to also access word prediction.

The display shown in Figure 2 is much harder to use than Figure 1 because word prediction easily distracts, because there are more items to choose from, and because the ordering of characters is rather complex.

In Figure 1 characters are ordered alphabetically and from left to right, but in Figure 2 they are ordered first by frequency, then alphabetically, along diagonals rising from left to right. Individual characters can be hard to find in a split second and this ordering is not learned easily.

See a video of this method at: *www.depratendecomputer.nl/videoorientedscanning.mp4*

ALTERNATIVE MORSE CODE

Another method for text input with switches may be called Alternative Morse Code. Both this and Oriented Scanning, as far as I know, are new techniques.

In Alternative Morse Code, related codes are assigned to nearby characters and the codes of frequent characters such as Space, Backspace, E, A, I, N, and O are short. As with all forms of Morse Code, it is extremely compact, and therefore must be error prone. When we compare the code for ‘r’ with Figure 1 we find ‘..–’ instead of Right Right Right Down Down – quite a difference. For some other characters the difference is slight.

If we use character frequencies of modern printed English (using Wolfram’s Alpha) and add 18% for Space and 11% Backspace, based on measurements during development, we find 2.66 clicks per character with the display shown in Figure 1 and 2.40 clicks per character with the display shown in Figure 3. Both techniques require few clicks per character and can be assessed with either one or two switches.

Mathematically speaking, and with X* meaning “repeat X any number of times including zero” we may say: (Alternative) Morse Code = (. or -)* Pause and Oriented Scanning = (Down*Right*) or (Right*Down*) Pause. Clearly, correct codes always terminate with Pause.

TESTING HYPOTHESIS

We formulated the hypothesis that *“input with Oriented Scanning will be as fast as with Alternative Morse Code in the first hour and with a copy task”*. We carried out exercises to test the hypothesis.

Three different able-bodied test subjects copied English texts[3] from paper using the display shown in Figure 1, two switches, a pause time of two hundred twenty milliseconds, selective delays, and for exactly one hour.

The same exercise was done with the display shown in Figure 3, with the same texts, the same pause times, and with stretched pauses after codes of length three.

All subjects slowly read those texts first to limit effort of spelling and to limit the effect of starting with one technique. All subjects tried both systems for ten minutes each before the trial to get used to them and to the switches. Pause time was neither varied nor optimized individually[4], and all errors had to be corrected.

Short breaks were allowed on demand and users were interviewed.

RESULTS

Both techniques performed rather well. As might have been expected, test subjects verified codes on screen.

Figures 4 to 6 show results for the first test subject. Table 1 shows average input speeds in two conditions as well as token tests on individual data points. Table 2 shows comments.

Our hypothesis was rejected three times, and each time in favour of Alternative Morse Code.

Both Alternative Morse Code and Oriented Scanning represent interesting alternatives to row-column scanning for text input with switches. Both appear to be easy to learn. ✽

Joris Verrips

DECLARATION OF INTEREST

The author is designer, programmer and distributor of Alternative Morse Code and of Oriented Scanning.

ACKNOWLEDGMENTS

Thanks to test subjects Mente Nauta, quality manager; Marjo Biesboer, speech language pathologist; and Jack van Dillewijn, psychologist.

Figures 4 to 6 were made with Mathematica. Thanks to Piet van Blokland for the idea of Figure 6.

The photograph is courtesy of Annie Verrips.

VIDEOS

The following website has several videos on communicating with switches: *www.depratendecomputer.nl/results.htm*

For more material including footnotes, references and a rationale of the experiment, go to: *www.depratendecomputer.nl/comparisonfulltext.pdf*

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[3] From McKenzie, 2009, the first thirty lines with all word lengths below six.

[4] Pause time after training is considered optimal at about 1.6 times reaction time, see Simpson, Koester and Lopresti, 2006. They quote evidence that indicates the fraction (scan rate/reaction time) should be 0.65. Scan rate is not exactly the same as pause time.


"Errrrm
I know the answer!"


I am happy to meet you.
I
Can
My
A

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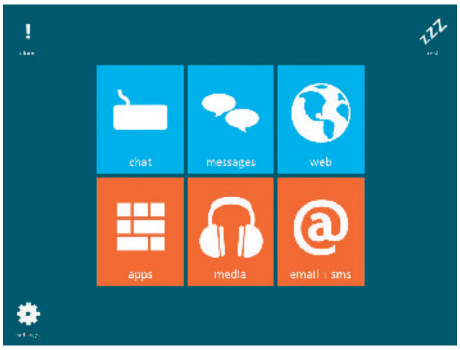
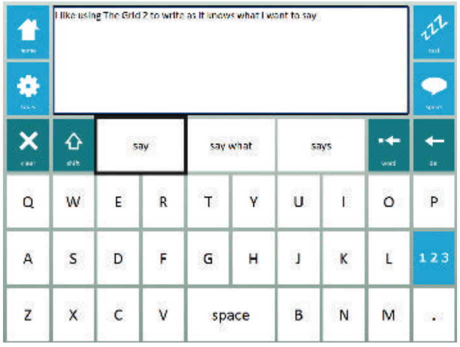
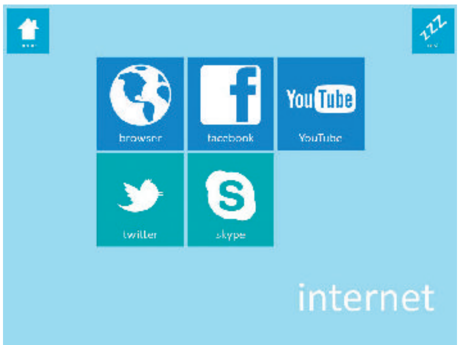
The Grid 2



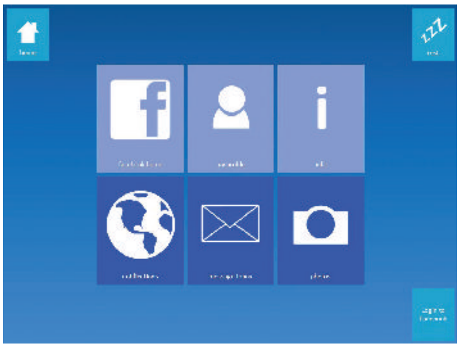
Home


I like using The Grid 2 to write as it knows what I want to say

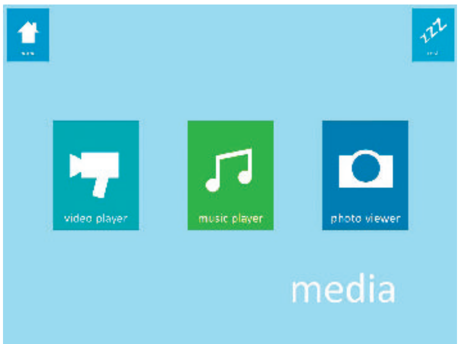
Communication



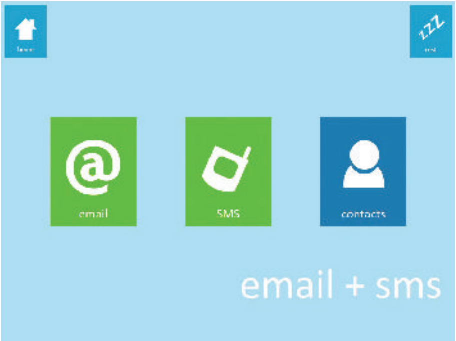
Internet apps


Facebook

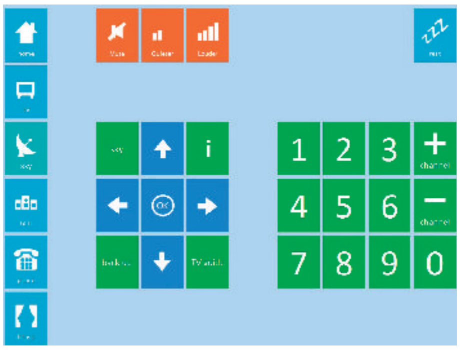
Fast Talker



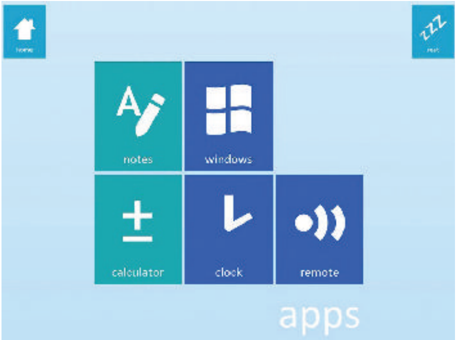
Media apps



Email and SMS



Environment control



Much more...

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