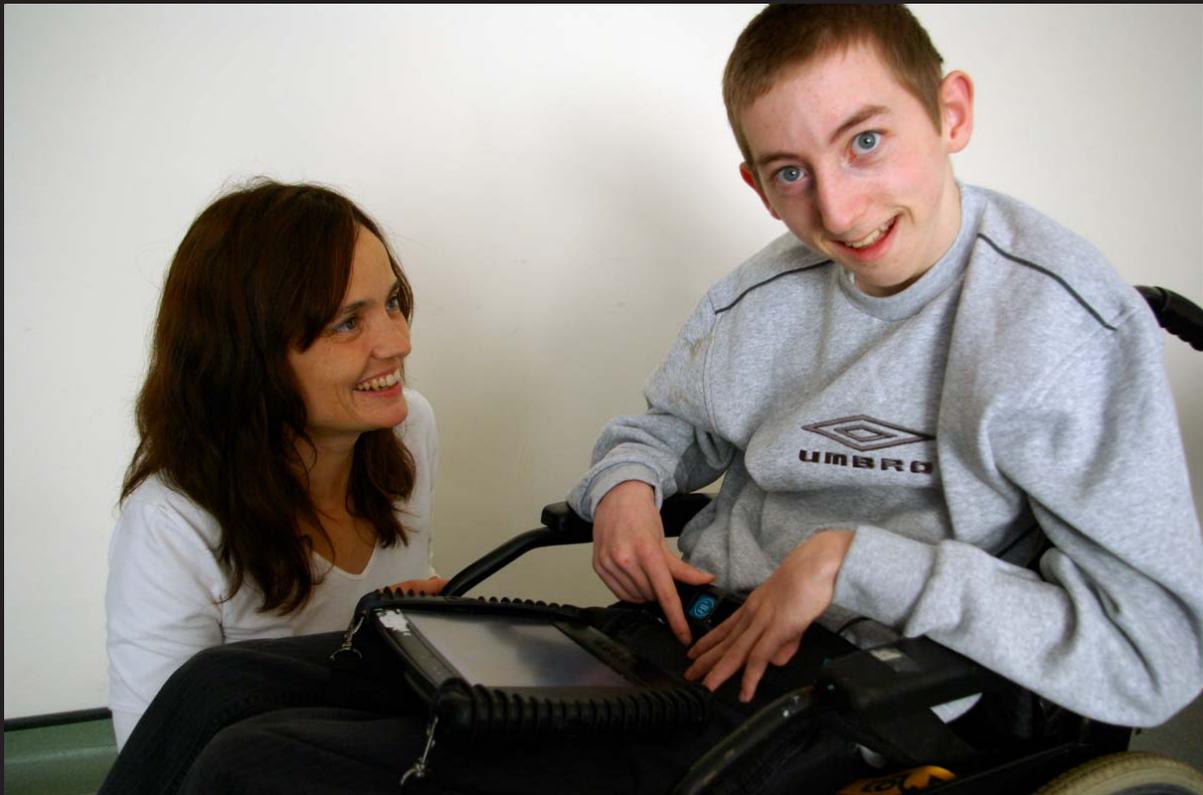


COMMUNICATION MATTERS

NOVEMBER 2007 Volume 21 Number 3

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Using an Eye-Gaze System with Two Primary School Pupils with Severe Accessing Difficulties

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Over the past few years eye-gaze technology has developed to a point where it can now be considered a realistic option when addressing the significant accessing issues of people with physical difficulties. This paper describes the assessment and outcome of using the My Tobii eye-gaze system with two primary school boys.

In the summer of 2006 Frazer was age 10;8 and Ian was age 8;3. Frazer attended a Special Needs School and Ian, a mainstream school with a Resource Base which included children with physical difficulties. Both boys have severe athetoid cerebral palsy. From an early age they both had excellent eye-pointing skills and clear yes/no responses. They also demonstrated a good understanding of language and were extremely motivated to communicate.

LOW-TECH AAC

Both boys used their own non-verbal strategies effectively with familiar people. These included: informal eye-pointing, body movements, facial expression and yes/no responses. Their symbol knowledge increased rapidly and they were both able to use symbols to communicate. Frazer's low-tech system consists of a series of boards attached to his tray with 9 colour-coded blocks of 9 symbols. The boards are topic based and include a con-

sistent core vocabulary on each board. Ian has two communication books, one primarily for home, the other more curricula based. Ian has 9 blocks of 6 symbols and also has a basic core vocabulary. Ian's coded eye-pointing tended to be very fast and therefore difficult for less familiar people to read. Fun and games sessions took place with Ian's mainstream peers. These encouraged Ian to take his time and fix for longer on each symbol, otherwise his friends became confused.

HIGH-TECH AAC

On formal assessment of language comprehension both boys show a mild delay for their age. The marked discrepancy between their receptive and expressive abilities was growing increasingly wider. There was an on-going need for more complex vocabulary. The boys progressed through simpler Voice Output Communication Aids to the Tellus. Both started with simple custom made grids of 4- 6 squares and progressed to the CALLtalk grids.

ACCESSING – THE KEY TO COMMUNICATION

The boys' accessing remained the major barrier to communication. As their need for more complex grids developed, the time needed to communicate a message became more of an issue. Both boys had used two switch assisted scan, with a head

switch. They had also used the Head Mouse for a time with some success but both needed support to use this reliably so it was not functional. In 2006 the boys were using auto-scan with a single head switch with the scan time at 2-3 seconds. Communication was slow and in one case accidental hits were frequent. Other professionals were involved over the years with both boys including a specialist in accessing from SCOPE, occupational therapists and physiotherapists from the Health Trust, and the Bobath centre. Both boys were given accessing systems for their power chairs. Frazer uses a scanning system with single head switch and Ian uses four chin switches. It became apparent that the accessing skills required to activate a VOCA in terms of accuracy and timing are greater than those required for mobility. Accessing for communication remained inconsistent, slow, hard work and stressful for all concerned.

EYE-GAZE – AN ALTERNATIVE?

Following a successful demonstration of the My Tobii system at Communication Matters in 2005 it appeared that eye-gaze was becoming a viable and reliable possibility for people with accessing difficulties. In May 2006 the Frenchay CAC acquired their own eye gaze system. Their independent evaluation of the systems

revealed that the My Tobii at that time was expensive and cumbersome but also the most reliable system which coped very well with fairly significant head movements. Both boys were referred to the centre for assessment and were seen in July 2006.

THE ASSESSMENT PROCESS

During the assessment period we wanted to find out whether the boys would be able to use the system sufficiently well to calibrate it themselves and cope with the busy communication screens with which they were familiar. We also wanted to gain a realistic picture of the level of IT support which using such a high tech system would necessitate and whether by using this as their sole access method, they could access all the curriculum based resources and leisure tools that their peers were accessing. Finally, we hoped the assessment process would prove our suspicion: that eye gaze would provide a faster and less effortful access method for both boys.

The My Tobii system was set up by the Frenchay CATS team in each boy's school environment for a 3 week period. Initial training was then provided by the CAT service for the local SLT and classroom assistants. The boys were required to carry out their usual school activities using the eye gaze system in place of their Tellus communication aid and head switches. They were supported by their usual classroom assistants who had varying degrees of IT experience.

OUTCOME OF LOAN PERIOD

Objective measurements were kept during the loan periods to enable us to make informed comparisons between the eye gaze system and the boys' traditional access methods.

The loan period demonstrated that both boys were able to fully calibrate the system at different times and when seated in different chairs. The eye gaze system was almost three times faster than using a head switch. One concrete example of this was that where they could previously write one sentence during literacy hour, they were able to write four paragraphs & finish the class writing activity. Both boys were able to access their usual communication screens however for one of the boys some modifications were necessary to the screen layout. For one of the boys, the top right and bottom left cells were difficult to access. This obviously had implications for screen layouts but it was easily overcome.

Other outcomes noted during the loan period were:

- The boys spoke on a wider variety of topics - news, feelings, questions, jokes, numeracy, literacy, playing music.

- They demonstrated more initiation, particularly expressing feelings.
- More elaborate sentences were produced.
- Fewer errors were made.
- Improved posture, neck and spine positions were reported by the OT.
- System was used for longer periods due to decreased fatigue.
- The boys enjoyed playing with language, just as peers of their age would do.
- Staff found it more difficult to 'help' with this system which reduced their 'interference'.
- Support staff found it easy to use and quicker to set up than the head switches.

RATIONALE FOR RECOMMENDATION - THE CASE MADE TO THE LEA TO REQUEST FUNDING

1. Physical issues

Although it would seem to many of us that using our eyes to activate communication grids would be extremely tiring, the boys seem able to use eye-gaze with fewer adverse physical effects than using a head switch.

- Frazer has a persistent sore on his ear which use of the head switch would exacerbate from time to time.
- The absence of the head switch allows for freer movement of head and upper body as long as the boys return to the head rest. Head switches have to be placed precariously close enough to reach. Accidental hits are a risk with both boys, particularly on 'bad' days. This can be stressful for both boys.

- Slight inconsistencies in position and posture on the day did not seem such an issue as it did with the head switch. The system could be re-calibrated at any time. The boys use their head switches mounted on a Manfrotto arm as flexibility is needed. However, time is often spent getting the switch 'just right' on the day.
- The pause feature of the software also allows the boys to relax and move freely. Because of these points both boys appear more relaxed and happy when using the eye-gaze systems. It is notable that Ian was even able to use the Tobii system well on a day when he was feeling 'under par'. Head switching would have been impossible for him in those circumstances.

2. Speed of communication

The eye-gaze system significantly increased the rate of their communication (see audit data). Because of this:

- The quantity of communication is increased. Therefore the incentive to produce whole sentences is increased.
- Communication partners are more likely to initiate, respond and remain engaged in interaction.
- Self-esteem is increased.
- Independence is increased as there is less of a need for others to interfere.
- Exploration and learning of new vocabulary is faster and easier.
- Learning curve is accelerated in all areas, for example, faster access for educational applications such as Clicker.
- Communication with mainstream peers becomes more realistic.
- Fewer accidental hits also speeds up communication and maintains motivation.

COMMUNICATION AID ASSESSMENT				
Name:				
Date:				
Access method:				
Vocabulary set:				
Examples:	No of hits required	Time	Accidental hits	Comments
1. Hello				
2. I'm OK thank you				
3. I want to stop				
4. Can I go outside?				
5. Delete one word from previous sentence				
6. Where is Dad?				
7. Last night I watched TV				
8. I have ... brothers/sisters				
9. Can I listen to my music?				
10. Clear the message window				
Any word or phrase of choice depending on ability of child				

Figure 1 Comparing accessing methods

The boys had no 'anticipation anxiety'. Errors could be corrected more easily and quickly.

AUDIT

The boys received their My Tobii systems in July and August 2007. In the summer term 2007 both boys began using Picture Word Power grids. They are both able to access pages of 96 to 104 cells with their eyes.

A table (see Figure 1) which was originally designed to compare different vocabulary sets in terms of number of hits required to communicate a message was used to compare the two accessing methods. Information on the time taken to communicate the same message using eye-gaze and head switch auto-scan and the number of accidental hits has been obtained.

The data on Ian was taken during his loan period in February and compares the two accessing methods using CALLtalk grids (see Figure 2).

The data on Frazer is taken from a session in September using the Picture Word Power grids (see Figure 3).

This audit is on-going and more data will be collected throughout the forthcoming

year 2007/2008 to monitor the boys' familiarisation with their new vocabulary and any further progress made in their use of the eye-gaze system.

CONCLUSION

The LEA agreed to fund both systems in the Summer Term 2007. We had a short time over the summer to set up and for the boys to familiarise themselves with the systems before they moved on to new schools in the Autumn.

The My Tobii is not mounted on either chair at present so functional use is limited. The boys both have their Tellus devices on their chairs for more mobile communication.

It appears from the small amount of data collected that the eye gaze system is the most effective way of accessing for both boys.

The boys have communicated that it is their preferred access method. Possibly the most conclusive evidence can be seen

Sentence	With headswitch	With eye gaze
Hello	2mins 25secs	12 secs
I am 8 years old	1 min 22 secs	25 secs
Excited	2mins 40 secs	12 secs
I have 2 brothers	2mins 45 secs	53 secs

Figure 2 Time to generate messages (with CALLtalk)

Sentence	With headswitch	With eye gaze
I am good thank you	More than 3 mins	12 secs*
Can I go outside?	More than 3 mins	21 secs
Where is Dad?	Didn't have courage to ask!	46 secs

* second attempt was self-corrected

Figure 3 Time to generate messages (with Picture Word Power)

simply by observing the boys using the My Tobii. Ian's squeals of delight and Frazer's broad grin which accompany their communication on the My Tobii are clear indicators that we are taking the right path. *

Hannah Curry & Sarah Woodward
Specialist Speech and Language Therapists

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Do Utterances from a VOCA Receive the Same Respect as Spoken Language?

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WHAT IS THE ISSUE?

Some communication aids have the capability to record all the utterances said on that device. These monitoring systems can be used to help 'professionals' to guide the skills of the person who uses the communication aid – helping to develop their interaction with the device and to maximise their communication ability as well as to monitor the effectiveness of communication partners. My colleague and I made some informal investigations and it appears that more and more companies are looking at including this type of monitoring system. At the CM2006 Communication Matters National Symposium one speaker suggested that monitoring systems needed to be recording 24 hours a day, 7 days a week, as this led to the best communication aid use. Monitoring systems can be useful, they can lead to interesting and informative findings which we may not be able to see or appreciate without such technology, but should they really be used 24 hours a day, 7 days a week? This led us to ask some questions.

SOME OF THE QUESTIONS

- Does the person who uses a VOCA know how to switch this function on and off?



- Are they fully informed of when this is being done?
- Should this function be on all the time (to allow a thorough investigation of language use) or is this a violation of a basic human right?
- Are there issues with data protection once the data has left the device?
- Do the communication partners have to give consent to the use of this function?
- Are there any legal issues of slander or being liable for things that have been recorded?
- Should manufactures be providing clearer information about such functions and how they work? E.g. how to turn it off/on, consent forms for use, etc.
- Are we recording a computer or someone's thoughts and feelings?
- If people are using it should they be informing the communication partner that responses to their speech are being recorded?
- Does the person using a VOCA want to show a therapist all aspects of their life?



guests were asked to give their views regarding these monitoring systems and issues around privacy for the person using the device, and then the debate was opened to the floor. The guests covered a variety of view points from people who use AAC, manufacturers, therapists (SLTs) and researchers. As the debate progressed it became apparent that more questions were being raised than answers provided.



THE OPINIONS

Would a speaking non-disabled person tolerate being recorded for the majority of their day? It was suggested that extensive activity monitoring was an example of disabled people finding themselves in situations which wouldn't normally be possible or which, for anyone else, would be considered a violation of their human rights; especially in the name of therapy.

A range of practitioners' perspectives were shared and included questions such as:

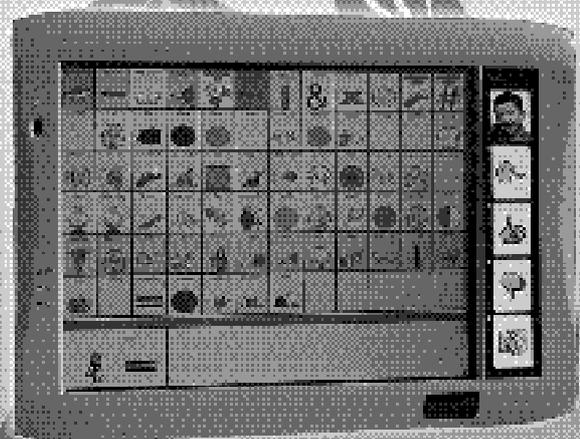
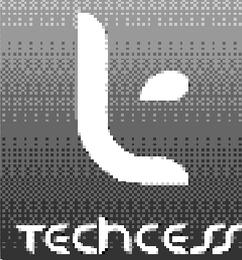
How do you evaluate the language activity if you do not have a holistic picture of the entire communication/interaction?

The research practitioner's perspective suggested it was a useful tool when used



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in conjunction with other data collection devices, e.g. video recording. It is also a useful tool when used within an agreed research protocol. In the UK this has been done in controlled situations such as interviews, which were videoed and allowed the context of the language activity to be taken into account. The researchers in the UK have acquired informed consent from volunteers to use a monitoring system (with the reason for this recording fully explained) and allowed candidates to view their own language activity to agree its use for research, hence giving the volunteers two opportunities to ask questions or withdraw from the process. The researcher's concluded that it was useful for research but only if used in a finite way, e.g. not 24/7.

The developer's perspective suggested that activity monitoring offers a way of monitoring the use of particular functions, and hence improving on the products design and function in practice. It was stated that occasionally the manufacturing companies receive devices for repair which may still retain some personal details of the individual, e.g. full name, address, bank details, pin number and mother's

maiden name (often used as a security check in the UK for bank account access). Is there a security risk involved here?

The advice given was "Watch what you put on a device and if it is of a personal nature, encode it or bury it well [in the device]".

Whilst it was suggested that manufacturers send out their devices with the monitoring systems switched off as a default setting, this was not the experience of people who attended the debate. Do companies need to take a bigger responsibility for this? Communication partners were uncomfortable (and sometimes unaware) that responses to their discussion were being recorded. Do communication partners need to be informed when the monitoring system is being used? If so, is there a consent issue for all people involved with that device?

Finally, it was suggested that 'If you want to be a 'good user' you have to be using a monitoring system'. We believe this view needs to be challenged - monitoring systems can enhance some people's use of a device, but they are not necessary for everyone, and some people are 'good

communicators' without them. Besides, what is a 'good communicator' anyway?

CONCLUSION

Monitoring systems are useful however we need to be mindful of how we are using them. We believe this is not something to be switched on by the professionals but something to be discussed in partnership with people who use communication aids.

The debate at the CM2007 National Symposium raised more questions than answers and certainly demonstrated the complex nature of the topic. We have applied to take this debate to the ISAAC International Conference in 2008, to encourage a wider audience to think about these key issues, such as: Why do we use activity monitors? Is it justified? Do we need to be more respectful of people's rights? Are we recording people's thought and feelings?

Monitoring systems can have a potential benefit but would you like someone reading some of the things you have said this week? *

Claire Forster, Speech & Language Therapist
Katie Caryer, Role Model & Campaigner

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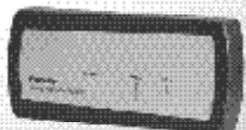
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Teaching Emerging Literacy Using A VOCA

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INTRODUCTION

Teaching Literacy has undergone a radical reorganisation, not only in terms of *what* must be taught but also *how* it should be taught. As professionals who support individuals who use a VOCA for their communication, we are expected to embrace the latest teaching guidelines, as teaching language is at the heart of the governments latest guidelines on teaching literacy. Even if an individual is not ready to develop reading and writing skills when they first receive their VOCA, because language is the foundation stone upon which reading and writing skills are built, we must incorporate it into our work.

You are expected to implement changes to the way you teach literacy by 2008 and should already be reporting on individuals performance against P levels.

I was called in by PRI Liberator Ltd to consider the changes and advise the company on how it could support professionals in discharging their duties to develop language, and teach reading and writing with a VOCA.

THE BASIS OF THE NEW GUIDELINES ON TEACHING LITERACY

A review was commissioned by the government which examined best practice in teaching reading. The 'Independent Review of the teaching of early reading by Jim Rose was published in March 2006. It

was from this review that developing language played a fundamental role as the bedrock of other literacy skills. Out of this report came the Primary Framework for literacy and numeracy, October 2006; and barely a year ago we were being told *"the revised framework makes explicit the centrality of speaking and listening, not only as a communicative skill in its own right, but also as the bedrock of literacy development."*

We are presented with a diagrammatical explanation (Figure 1):

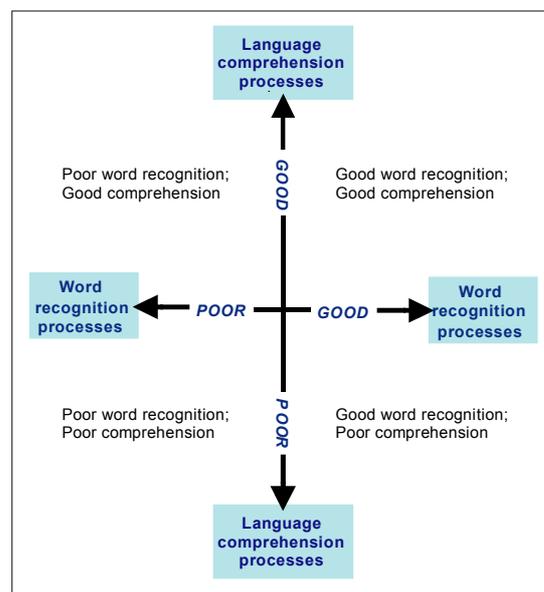


Figure 1 Language comprehension & word recognition processes

As reading comprehension has now been shown to depend crucially on language comprehension, professionals need to ensure that individuals have good oral language development and need to foster language comprehension.

The teaching of reading has become the simple view of reading *"...learning to read...involves setting up processes by which the words on the page can be recognised and understood, ...continuing to develop language comprehension processes that underlie both spoken and written language comprehension."*

Both sets of processes are necessary for reading, but neither is sufficient on its own." (The New Conceptual Framework for Teaching Reading: The simple view of reading - overview for literacy leaders and managers in schools and Early Years settings, DFES 2006)

The constant reference to language development is embedded in the Early Years Foundation Stage through to the Primary Framework, associating its principles with all individuals from the start of their educational journey.

We have been presented with what we need to teach, but there is more. The works of Daniel

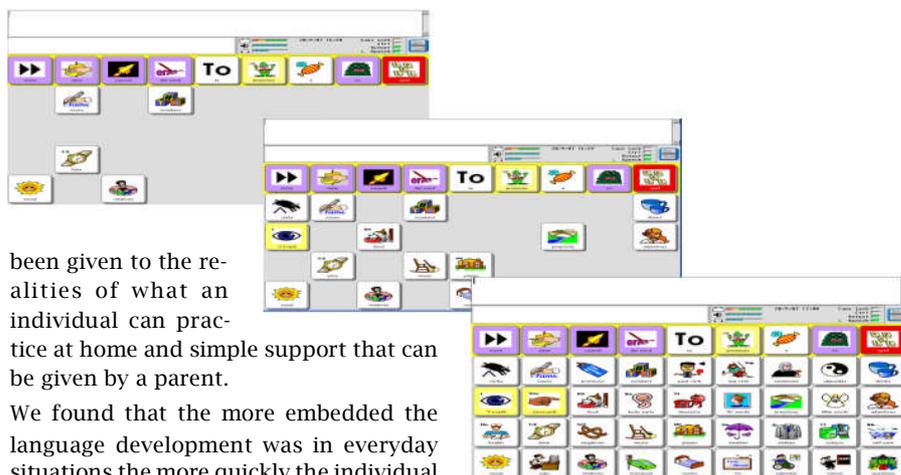
Golman on emotional intelligence, Edward deBono on thinking skills and Guy Claxton on brain based learning have all contributed to 'how we should teach. In May 2003 the package 'Excellence and Enjoyment was published with its aims of "...high standards are obtained through a rich, varied and exciting curriculum which develops children in a range of ways." This was followed in November 2004 with 'Every Child Matters with the aim "...every child whatever their...circumstances, to have the support they need to; enjoy and achieve ... make a positive contribution." The principles in both documents were mirrored in the Early Years Foundation Stage package which was presented to us in February 2007. We are also reminded that "Whatever their key stage or chronological year group.. these children need opportunities to revisit..." (Learning and teaching for children with special educational needs in the primary years, DFES 2004)

OUR RESPONSE TO THE NEW GUIDELINES

With all these challenges in mind we looked at creating a support package that would develop language in an exciting, effective and efficient manner, helping individuals to make a positive contribution in a safe 'achieving environment. We would then be meeting the aims of the latest 'what and 'how to teach literacy. Alongside this we are charged as professionals with assessing learning outcomes and so we have incorporated these within the package.

In practice, this involves incorporating language development into everyday situations so that learning language becomes a natural part of a child's daily routine. We examined situations such as 'registration and how language can be built, starting from its earliest social phrases, moving on to 'I verb phrases and later practising prepositions. These situations are set out as teaching plans and written as a script, as we found from our work in schools that it could be a teaching assistant who might work with a group. The teaching plan includes the aims teachers are expected to achieve from the latest National Curriculum speaking and listening P levels published in June 2004, descriptors from the SCOPE document 'Supporting Communication Through AAC and a local authority's publication that breaks the P levels into 4 steps (Lancashire County Councils PIVATS). Assessment points are included using the VOCAs onboard Language Activity Monitoring recording facility and printable certificates add to the sense of achievement for the individual.

We have also included home practice sheets, where careful consideration has



been given to the realities of what an individual can practice at home and simple support that can be given by a parent.

We found that the more embedded the language development was in everyday situations the more quickly the individual became fluent in the use of their VOCA and the more language they would use outside the situation in which it was introduced. This is of course nothing new to us; "Language is acquired not in the role of spectator but through use. Being "exposed" to flow of language is not nearly so important as using it in the midst of "doing". (Bruner, J., Acts of Meaning. Cambridge MA: Harvard University Press, 1990)

We have taken situations through from achieving P5 to P8. To help in this the VOCA allows us to build the contents of the communication program gradually. It is quick and simple to do and ensures that all individuals, no matter how they access the machine, are confident as they acquire more and more language. This is the 45 key location Language, Learning and Living communication programme.

INCORPORATING PHONICS, READING AND WRITING

With language development well on its way we have ensured that we meet the criteria for reading by incorporating synthetic phonics into the literacy language program for individuals to use. Children using a VOCA are therefore able to work alongside their peers using synthetic phonics, working to the government's phonics resource 'Letters and Sounds published in May 2007. This is necessary for spelling outlined in the documentation.

We have also included in the package, how a reading book can be used to teach; reading, another curriculum subject, and promote language development in accordance with the philosophy of 'Excellence and Enjoyment in making learning exciting. The aims and assessment criteria of learning that we are expected to check individuals have achieved are also included within this element of the package.

When teaching emerging literacy, writing starts to play a part. Just because someone uses a VOCA this does not mean they cannot progress in this skill. The package includes *what* and *how* to promote this skill with a VOCA.

We believe we have responded well to the importance now placed on language in literacy development. We have incorporated 'what and 'how we teach literacy, with assessment embedded within the materials and produced a practical teaching program for Teaching Emerging literacy Using a VOCA.

To find out more about the Emerging Literacy Teaching Program please contact PRI Liberator Ltd on Tel: 01733 370470 *

Sian Baker

APPLY FOR AN ISAAC AWARD

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The award will be presented at the ISAAC 2008 Biennial Conference in Montréal, Canada, August 2008. The award winner will receive US \$7,500 and full ISAAC conference delegate status. The closing date is 31 March 2008. For further details, visit www.possu.co.uk

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ISAAC has a great choice of awards and scholarships. Deadlines for submitting applications are fast approaching. We encourage you to visit the ISAAC website and make an application as soon as possible: www.isaac-online.org

For more information about the ISAAC Biennial Conference, visit: www.isaac2008.org

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Seashell Speak and Sign

Joint winner of the Sternberg Clinical Innovation award 2007

JACKIE BARKER & FIL MCINTYRE

Royal Schools for the Deaf and Communication Disorders, Stanley Road, Cheadle Hulme SK8 6RQ
Email: Jackie.barker@rdsmanchester.org Email: fil@inclusive.co.uk

INTRODUCTION

Seashell Speak and Sign was presented on the final wet afternoon of the Communication Matters CM2007 National Symposium. It was presented jointly by Jackie Barker, Owen Platt and Fil McIntyre.

Owen is a teenager with a wicked sense of humour who stole the show by unexpectedly talking about his favourite subject, which had nothing to do with AAC but something to do with this paragraph heading. It was through his AAC that he entertained the audience and left Jackie and Fil struggling to recall what they had prepared to say. Owen (and his 'special topic' and even Tommy Cooper) stole the show.



OWEN'S STORY

Owen is 17 and attends the Royal Schools for the Deaf and Communication Disorders, near Manchester. A few years ago Owen passed the Open College Level 1

signing exam using an early prototype of the sign output communication aid. Owen is deaf and has a muscular disability which affects his ability to sign. In the exam he was allowed to answer the signed questions using his communication aid. The aid was different to traditional VOCAs because it spoke his language. It was clear to everybody that the sign output was important to Owen. However the prototype needed a lot of refinement. Most importantly Owen needed a set of pages that were well organised and suited to his social and linguistic needs. In 2007, these pages were created and named Seashell Speak and Sign.

WHAT MAKES SEASHELL SPECIAL?

Seashell is the first vocabulary set that allows the user the option to *sign* their message in addition to speaking it. It operates within The Grid 2 from Sensory Software. Currently, The Grid 2 is the only communication software in which the user can make a sentence from multiple selections and then have that message signed on screen. The signer is a lady who appears in a video clip which fills the screen (see Figure 1).

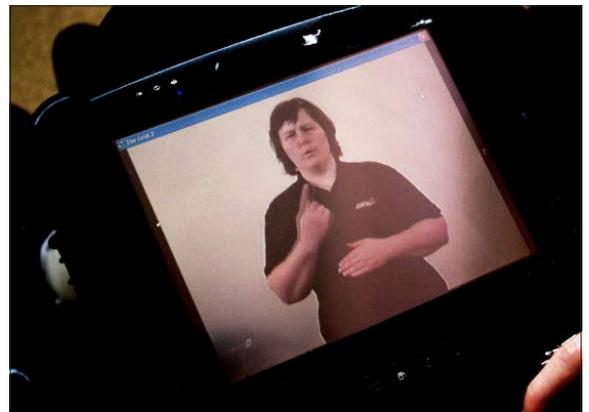


Figure 1 Message is signed on the screen

KEY FEATURES OF SEASHELL

- Symbol based;
- Provides choice of whether to 'speak message' or 'sign message';
- Modern young adult vocabulary;
- Supports functional key word communication, not English grammar;
- Large vocabulary (over 1000 words);
- Consistent, simple layout and navigation;
- Reflects some features of BSL (British Sign Language);
- Blank cells for easy insertion of new vocabulary and new pages.

Cognitive Products

new

In addition to our well known range of Lightwriter and adVOCate communication aid and environmental control products, we are now offering two cognitive products to assist people who have difficulty managing time.

MemoryMessage

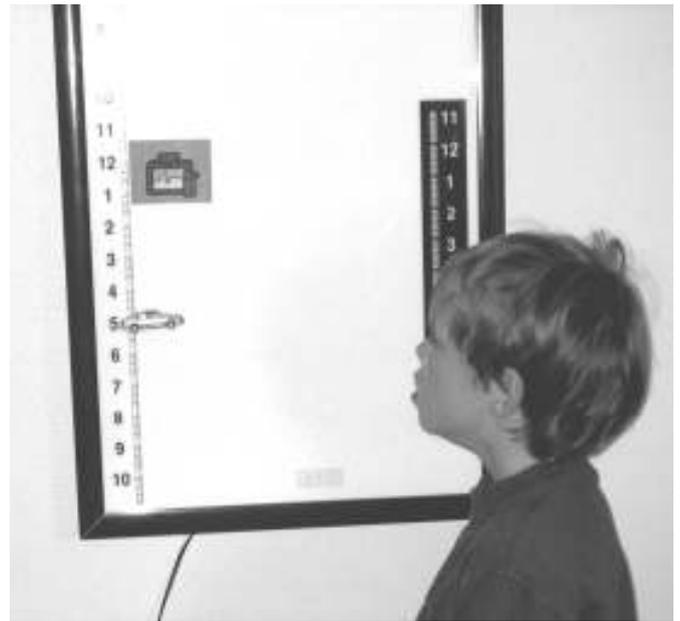


A portable speaking clock designed for persons with congenital or acquired brain damage to help them control their day with confidence.

It provides a range of pre-recorded messages at pre-determined times to inform the person what activity should be undertaken.

A total of 280 alarms can be set, with a recording capacity of 40 speech messages, each 10 seconds long. It is customised to meet to the user's particular needs.

DayPlanner



A magnetic whiteboard with electronic visual and auditory prompts, it makes time easy to understand and helps structure the day.

It has proven successful across all ages and in many different settings, home, classroom:

- Alarm for start and end of activity
- Sequences daily activities
- Separates day from night
- Visual prompt confirming activity
- Reinforces structure of day

One of the largest disability groups in our community is people with cognitive disability and learning difficulties, yet they are often forgotten when it comes to assistive technology.

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BEING A DEAF VOCA USER

At Royal Schools for the Deaf and Communication Disorders, we saw that our deaf students were at a disadvantage when learning to use VOCAs. It is worth mentioning that all our students have learning disabilities, in addition to deafness. It was these observations that led us to want to create a Sign Output Communication Aid. Table 1 shows the difficulties experienced by our students, and considers which of these were solved by our creation of Seashell Speak and Sign.

SENTENCE BUILDING IN SEASHELL

There are five core pages, accessible from every topic page. These enable the user to give more detail in their message. The core pages include:

- Person *me, you, him, her*
- Thought *like, I like, don't like, want, don't want, hope, maybe*
- Negative *no, not me, nothing, not allowed, not possible*
- Question *who, where, when, why, yes or no?*
- Time *before, now, later*

So a user might say:

- *Swimming no*
- *Swimming me later*
- *Swimming when?*
- *Swimming I like*
- *Swimming you yes or no?*

Our users find building messages difficult and tend to get stuck on key nouns and verbs. These core vocab pages are helping them learn to be more specific.

WAS IT WORTH THE EFFORT?

An extraordinary amount of work went into Seashell, firstly working with Sensory Software who made frequent adjustments to their software to enable us to achieve the results we wanted. Then making and inserting over 1000 videos. But we do believe it was worth it and are still excited and optimistic about the outcome.

We have observed that our deaf students *always, without fail*, choose to 'sign' rather than 'speak' with the system. This provides us with a clear indicator of their preference. (Bear in mind that the 'sign' option simultaneously speaks).

In a hospital waiting room, Owen enjoyed amusing the other outpatients by communicating he was bored. His communication even meant that he got seen quicker! His Mum comments on the increased confidence he has gained from having his signing communication aid.

On one occasion I observed Owen self-correct his symbol choice when he saw the

Deaf users' experience of traditional VOCA*	Explanation	Solved by Seashell?
Does it Speak?	User had to be taught that message was being conveyed across the room.	Not fully
Look Down? You must be joking.	User is cut off from environment whilst looking at screen.	No. Vertical screen helps but doesn't solve the problem.
Driving you mad? Why?	User thinks 3 party symbols looks better than one! User does not appreciate partner's annoyance at repeat selections.	Partly. Repeat selections less likely because user can see the effect of multiple selections.
I wonder what I said?	User cannot be sure their intended message has been spoken unless partner signs it back.	Yes
What does that symbol mean?	User cannot independently explore pages to work out the meaning of abstract symbols, and symbols that convey whole sentence.	Yes
Traditional vocabulary sets based on English grammar.	User has no understanding of grammatical morphemes or auxiliary verbs.	Yes
This is a long way from communication as I know it.	User has to make bigger leap than hearing counterparts to connect aid with communication.	Yes
I want to talk to my deaf friends.	User cannot contribute in group of deaf peers. Friends not especially interested in user's communication.	Yes. User can now contribute to group through signing on interactive white board. Peers are interested in user's communication. Two way screen as future development.
What's the point in speaking if I can't understand the response.	Aid doesn't allow user to understand responses from non-signers.	Not yet. Future development?
This doesn't speak my language.	There is no connection between the aid's output and the user's receptive language.	Yes

* VOCA - Voice Output Communication Aid

Table 1 Experience of using traditional VOCA compared with Seashell

sign on the screen. He had mistaken back ache for tummy ache. It occurred to me that without the sign output he would have conveyed the wrong message and been dependent on the communication partner realising the error. That has got to make it worth it.

What is especially pleasing about the project is that the outcome is one that people can pick up and adapt to suit their own needs. They can adapt Seashell or start from scratch making a new signing user in Grid 2 using either the Seashell sign videos or their own.

SEASHELL ON INTERACTIVE WHITEBOARD

Seashell is now installed on computers attached to the interactive whiteboards in classrooms, and on main computers.

We only have a handful of communication aid users in our school, many of the

other students being deaf with severe learning disabilities but without physical disabilities.

Everyone has gained from having essentially the same vocabulary set on the portable aids and on class platforms:

- Teachers have become less fearful of what is on communication aids.
- Teachers have more opportunity to get to know the vocabulary set.
- All students stretch their linguistic skills through using the vocabulary set.
- All students gain access to vocabulary they cannot otherwise communicate.
- Aid user does not feel different and isolated.
- All students learn it is OK to communicate through a technological interface.

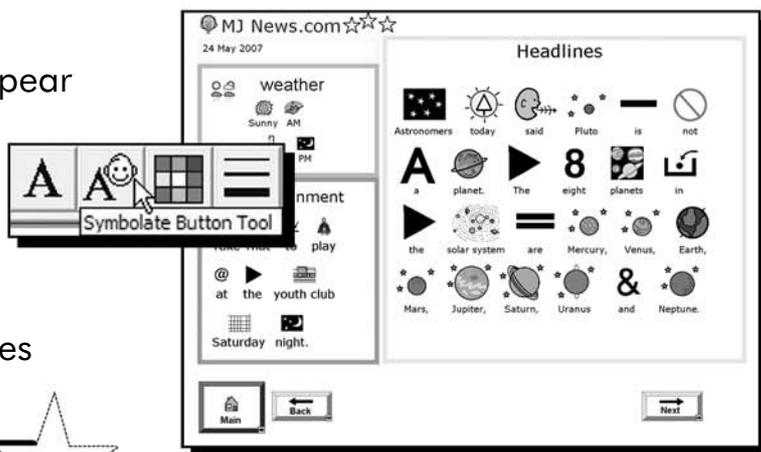
New UK version of Boardmaker v.6



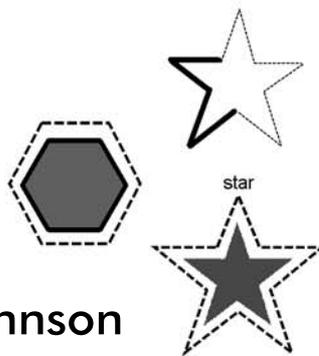
With UK vocabulary, example files and A4 templates

Version 6 new features:

- Symbolate - just type and symbols appear
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- Align and centre buttons and grids
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- The sounds library and quick record
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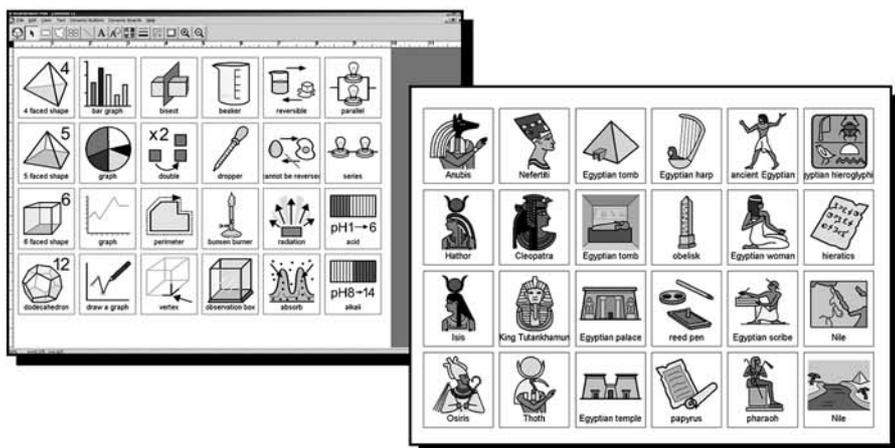
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SEASHELL FILOFAXES

Not content with just the aid users having personal access to the vocabulary set, we are in the process of making Seashell Filofaxes. These contain almost identical pages to Seashell Speak and Sign and facilitate the same sentence building strategies. Many of our students find it difficult to combine signs and to use abstract concepts. By mirroring the layout of the Seashell Speak and Sign that they use on the computers in low tech filofaxes, we hope many of our students without physical disabilities will learn to make better use of symbol communication and will extend their language skills.

DOWNSIDES?

There really are very few downsides. If we have to name some we would say firstly the large file size (Seashell without personalised pages is 480Mb); secondly that the spoken message is slow if the user creates a message with several symbols and chooses to sign it; thirdly that there is no bank of sign videos available to use beyond those we have made for Seashell.

WHERE DO WE GO FROM HERE?

Development of Seashell as a communication tool will follow three strands:

1. Creation of a larger vocabulary of signs. There will always be signs that people need and users' support staff will be able to create some of these themselves using ordinary digital cameras. Ideally we will film more signs which will be useful in school and will be made available to Seashell users.

2. Hardware development. The ideal communication method for two signers is face-to-face. This is impossible with one screen as the user needs the screen for reinforcement and the partner needs to see the output clips. We have explored one option of using a wireless, rechargeable screen (manufactured by Panasonic) that shows a mirror of the communication aid screen. The partner can then view this whilst facing the communication aid user.

3. Research into whether the structure of Seashell facilitates language development.

A FINAL THOUGHT FROM OWEN

We were very keen that users should have a signer that matched their own age and gender. Very important stuff, so we



Figure 2 Animals page on Seashell Speak and Sign

thought. This turned out to be impossible and Owen ended up with a lady signing on his screen. Out of interest we asked Owen if he would prefer a lady or man on the screen. He was emphatic: "A lady". *

Jackie Barker, Speech and Language Therapist
Fil McIntyre, former IT Tutor

ACKNOWLEDGEMENTS

With thanks to all who have contributed to this project; too many to name but in particular June Battye (signer) and Sensory Software. Also thanks to Royal School for the Deaf and Communication Disorders for their ongoing support.



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This ISAAC affiliated publication is published four times a year in German by ISAAC-GSC.

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1Voice Teenagers' DVD Project

TERRY GIBSON

¹ Claremont School, Henleaze Park, Westbury-on-Trym, Bristol BS9 4LR, UK Email: hannahcurry123@hotmail.com

The 1Voice Teenagers' DVD Project took place during the weekend of 13-15 July 2007 at the Hayes Conference Centre in Derbyshire. The weekend was also the occasion of the 1Voice AGM, dinner-disco and Family Network Day.

During the weekend, 12 teenagers who use AAC made a DVD, 'Listen to Me', with professional film producers, Silverfish, musician Andy, drama leader and animator Laura, AAC Role Model Katie, and research consultants Pippa and Mary, and also with help from the 1Voice role models, a team of volunteers, and family members.

The DVD, all about life with a communication aid, has three parts - a music track composed by the teenagers, a documentary about their communicating with AAC, and a PR section promoting the 1Voice group.

The project was funded with prize money that 1Voice received as winners of the Guardian Charity Awards 2006, and funding from Awards for All. Thanks to both.

The teenagers were involved at every stage of preparation and production, including scripting, song lyrics, music composition, shooting and editing. Their work started months before the weekend in preparation for being interviewed by our team of highly skilled professional researchers (Pippa, Mary and Laura) who have years of experience working with disabled children. The teenagers programmed their communication aids with introductions, interests, achievements, likes and dislikes, their experiences of being listened to, how they would like to be listened to, their top 5 tips, the most important messages they would like to get across on DVD, and their ideas of what the DVD might look and sound like. The researchers travelled up and down the country gathering the teenagers' ideas and liaising with the film crew.

The teenagers were also asked to provide in advance any object, photograph or drawing that they felt represented them,

and any other pictures they wanted to use or have seen on screen, and to share any ideas they had for animation scenes, special effects.

The researchers helped the film crew to really get to know the kids before they even met; they went out of their way to make each teenager's welcome reception personal and special to them, and they supported the kids throughout the weekend.

Friday evening was 'getting to know' you time. The teenagers met the film crew and did their introductions on camera, while parents discussed the weekend timetable in the bar. On Saturday the teenagers worked with the film crew all day while the parents shared experiences and skills at the parent workshops, walked around the lake, or sat chatting in the sunshine welcoming more families who were arriving for the AGM Saturday evening and Family Network Day Sunday.

The AGM followed a sumptuous dinner, and then there was the disco, where everyone was thrilled to watch movie clips from the day's shoot and dance to the first mix of the teenagers' music track 'Listen to Me'.

On Sunday, we had a dance workshop led by Alan Martin, bocchia, Role Model speeches, lunch, a circus skills workshop, art and crafts, hair braiding, tattoos and face painting; and time for families to mingle with each other and with the role models and volunteers.

The weekend was a resounding success due to excellent planning, coordination and hard work by all, as well as the reasons we always get so much out of being together with other communication aid users and their families - sheer inspiration, cutting through isolation, sharing information, ideas and experiences, removing barriers, and having fun. A truly amazing time.

Everyone who made this weekend such a great success deserves a great big thank you, especially our team of researchers

(Pippa, Mary and Laura), Silverfish (the film crew), Andy (our musician), all the fab volunteers, the families, our ace committee and of course the teenagers themselves!

'Listen to Me' was premiered at Communication Matters National Symposium in September 2007. It was very well received amongst delegates, many of whom took copies away to share throughout their organisations and schools. Since then the DVD has gone out to hundreds of people, including MPs, TV programmes and a few film festival competitions.

1Voice is getting emails from Australia, India, Canada and USA from people who have seen the video on YouTube www.youtube.com/watch?v=w5ZIUu8Oeo.

'Listen to Me' was also shown at a large Parliamentary Reception in the UK hosted by Dr Roger Berry MP on 14 November 2007, to mark the launch of Scope's 'No Voice, No Choice' campaign. John Berrow MP gave a speech about his review of speech and language therapy throughout the UK.

Marc Bush, Policy and Government Affairs, Scope, invited 1Voice teenagers to be there and their briefing was to speak to as many politicians as possible, which they did. Thank you to all the families who came and made the event such a resounding success.

1Voice teenager Nadia Clarke introduced the DVD and gave a talk on what AAC means to her. 1Voice teenager Beth Moulam will be showing the DVD as part of her presentation at ISAAC Biennial Conference, Montreal August 2008. *

Terry Gibson

Copies of the DVD are available from 1Voice for a small donation to cover costs. Email: info@1voice.info or phone Katie Clarke on Tel: 0845 330 7862.

For more information on 1Voice events, visit www.1voice.info



TRUSTEES' NEWS

CM2007 NATIONAL SYMPOSIUM

Once again the conference in September appears to have been a resounding success. Yes, as always there were a few little niggles but overall the new accommodation and the fantastic diverse range of speakers led to a really good event. The feedback included:

"I really enjoyed CM this year - one of the best I've been to."

"The delegates I spoke to were impressed with speakers, organisation and new accommodation!"

"The conference went extremely well and the sessions were consistently interesting and well presented."

"Well balanced intensity/breaks; good time to explore trade."

"Absolutely fantastic - brilliant! Great for finding out about new ideas, networking, seeing software used during presentations."

"Now I know why the others have been on at me for years to come. It was really worthwhile, thank you."

For me as the new Chair, the whole event was a little daunting at times, but the overwhelming welcome from everyone made it easier and there are many people who gave me tremendous support and I'd like to thank them for that. You all know who you are!

It was sad to say goodbye to Janet Scott who has done an excellent job. She has been Chair of Communication Matters since 1999 and very few people can claim to have led an organization in 2 centuries, so well done Janet. Janice Murray thanked Janet on behalf of the associate membership on the Monday morning, this was a big surprise for Janet but she took it well! Janet really will be missed, so the Trustees and I are grateful that she has consented to be a co-opted Trustee for one further year. Thank you Janet!

We had three superb plenary speakers during the conference. Pete Wells, winner of the BECTa award in 2005. He really put us in high spirits on Sunday afternoon with some of the multi-sensory teaching resources he uses. Kathryn Lemler on Monday morning told us the German fairy tale of the gifts the fairies bring new-born children. This was an insightful and humorous take on being a communication aid user. As a user of a MyTobii eye gaze system she proved just what success can be achieved using technology to communicate.

Finally, Alan McGregor blew our socks off - actually for those with hangovers on Tuesday morning it was a fantastic wake up call - with his music and video. We are really grateful to him for donating the proceeds from the sales of his CD during conference to help other people who use AAC.

NEW CONSTITUTION

The Extraordinary Meeting of the Associate Membership voted to approve the Trustees resolution to adopt the new Memorandum and Articles of Association, the documents governing how the charity is run. This was great news following months of hard work by the Trustees in consultation

with legal experts and the Charity Commission. I'm not going to go into detail now as this was explained in the last journal. But suffice it to say all of the Trustees will be glad to get back to focussing on taking Communication Matters forward for the benefit of all of the associate membership.

NEW INITIATIVES

Besides the governance review and getting the finances back on track, the Trustees were able to report on a number of other new initiatives. Much of the work of the Trustees is accomplished by sub-groups who take on tasks and report back to each main board meeting.

The Finance and Funding sub-group successfully obtained a £10,000 grant from Awards for All, enabling 29 people who use AAC to attend conference, along with personal assistants and other family members - a total of 80 people who had their places subsidized. Further bids are on the cards for 2008.

The Increasing Involvement sub-group put together a range of sessions to appeal to people who use AAC at conference. These were well attended and we will be looking to developing these in future. In addition, the *Leadership project* was launched for a person using AAC to join the board in a trainee role, see the separate article. Plus we also agreed to host an *Email group for people who use AAC*; this is now up and running - a closed group moderated by Peter Zein who uses a Pathfinder. If you know anyone who might like to join contact Patrick Poon, the Communication Matters Administrator (Email: admin@communicationmatters.org.uk), in the first instance.

The Publications sub-group collected material during conference for a new leaflet in the Focus On range. This is 'top tips' for communicating with people who use AAC and takes an AAC user insider viewpoint to inform and educate communication partners.

The Marketing sub-group are just getting up and running to look at how we increase membership, generate increased awareness and educate people about both AAC and what Communication Matters does. The *On-line Survey* is nearly ready to pilot and early in the new year we hope everyone can participate; notification will be via the E-News.

Please do fill it in and return it to us, we want to make sure we understand as much as possible about what you like and where you think we could improve what we do. The analysis is expected to be a big job but we know it will be worthwhile and the results will be published this coming summer. Marketing is one of our major areas of focus for 2008, so watch this space.

At the Conference this year we set up a group called the **Friends of Communication Matters**. The group comprises past Trustees who have volunteered to assist in a variety of ways in future. It's so positive to know that their expertise and skill is still available to the Board of Trustees when we need extra hands or particular advice. They are all busy people so we are grateful to all of them for volunteering their time and energy.



TRUSTEES' NEWS

RAISING AWARENESS OF AAC AND COMMUNICATION MATTERS

On the increasing awareness front, the Trustees have been busy working with the **Communication Consortium**. This is a group of third sector organizations like ICAN, Afasic, National Autistic Society, Scope, RNID and many others, who are advising the Communication Trust. The **Communication Trust** is a group funded by government to advise on early years workforce development for children with speech, language and communication needs (SLCN). The Trust has four members: ICAN, Afasic, The Council for Disabled Children and the BT Better World Campaign and is working closely with government ministers and officials from health and education. We have put forward Communication Matters as a provider of expertise to advise the John Berrow Commission which is reviewing the speech, language and communication needs of children and young people and are waiting to be called to help. One of the stated outcomes is to review provision of augmentative and assistive technology. Along with One Voice, Ace North and Scope we are working hard to ensure that the needs of those who would benefit from AAC are kept top of mind. In addition we are collaborating closely with **Scope** on a variety of projects, the briefing documents that went out to MPs for the 9 October debate on SLCN was endorsed by Communication Matters. We are represented in a steering group for their major new research project to review AAC provision which is funded by British Telecom and look forward to seeing the filmed evidence which will include over 80 interviews with people who use AAC and their family members.

Finally, the **Communications Forum** have been carrying out a consultation on their proposed Charter for Communication; we responded on behalf of the Associate Membership of Communication Matters. In addition, Communication Matters is now represented on a new group north of the border - **Communication Forum Scotland**.

REFLECTIONS

Such a lot is happening in 'our world' - it all seems positive and exciting.

Let's hope that the outcome of the John Berrow review next July lives up to all our expectations.

We have just seen another extremely successful study day 'Clearer Speech' focusing on intelligibility of speech in children, our thanks must go to Katie Price, Neurodisability Unit, Great Ormond Street Hospital, who co-hosts these days with us, providing the venue and liaising with the speakers.

Scope have launched their 'No Voice - No Choice' Campaign, see their article in this issue.

By now abstracts for the ISAAC 2008 conference in Montreal will be under consideration and I'm hoping to meet many of you in Canada.

Meanwhile I'm looking forward to see you next September for another great Communication Matters National Symposium, if not before at a study day or a Road Show.

Liz Moulam, Chair of Communication Matters
Email: lizcommatters@aol.com

ROAD SHOWS UPDATE

Following a meeting in May 2007 between the Commercial Members of Communication Matters who attend the Communication Matters Road Shows and Patrick Poon, our administrator, lots of work has been happening to build on these very successful events. In the last year, nearly 1,000 people attended 16 events. This is an excellent way for people to speak to the UK's top suppliers of communication aids and AAC related products, to evaluate a range of communication equipment and software, as well as network with other local delegates.

The Trustees took on board the invaluable comments from the Commercial Members who sponsor each event, feedback from delegates and used their own observations from attending Road Shows to come up with a range of support to develop these events for everyone involved. Thanks must go to Patrick for his sterling work in facilitating the changes.

The whole package now includes:

- There will be five presentation sessions per day rather than the previous six. Events are still attended by 8 to 10 suppliers but this gives more time for everyone to focus on their sessions of choice and with a newly added exhibition during lunch delegates will now have the opportunity to visit all companies attending.
- The morning opens with the organizer giving a brief introductory welcome, this should now be the same whether the show is in Aberdeen, Aberystwyth or Andover. Organizers are provided with Communication Matters' cue cards so they can personalize the introduction to delegates.
- Signage for the show has been branded so that delegates know the event is hosted by Communication Matters.
- A directory is provided to all attendees; this is now a bound booklet with each Commercial Member attending the Road Show having their own page containing a brief description of their products alongside their contact details. The bottom half of every page is blank for the attendee's own notes.
- Each directory includes information on joining Communication Matters.
- The booking confirmation directs attendees to the Communication Matters' website which in turn links to each supplier's website for pre-planning which sessions to visit.
- Certificates of attendance will be available for attendees who mark their booking forms accordingly. This has been a specific request from professionals to meet CPD requirements.
- In 2008, it is hoped that a representative of Communication Matters, either a Trustee or a Friend, will be able to attend at lunchtime to man a Communication Matters' stand to answer questions and sign up potential new members.

We hope to evaluate the difference these changes make and will be introducing feedback forms for each event. In addition the Commercial Members are intending to meet in January to reflect on the new format and to recommend any changes needed to continue to improve the day.

Cathy Harris, Dave Morgan, Liz Moulam & Tina Voizey
(Marketing Sub-group)



eCAT NEWS

FUNDING

The BHTA (British Healthcare Trades Association) companies have all supplied whatever information they have on how to get funding for communication aids, to the BHTA, who have drafted a proposed leaflet that is currently called 'Get Wise – Speak for Yourself!' The idea is that the BHTA members will pay for the printing and then have them available on exhibition stands etc. Currently in its first draft, it is a 16 page document and includes details of charities that could be approached, communication aid centres and routes that can be tried for adults and children.

As Chair of eCAT (Electronic Communication Assistive Technologies) I have written to Ed Balls, Secretary of State, Department for Children, Schools and Families, congratulating him on the 'Time to Talk' initiative (aimed at main stream education) but pointing out that there are many children who are not given the opportunity to talk! His response was not very helpful, but at least it's another organisation pointing him in the right direction!

WHEELCHAIR MOUNTING

Through the auspices of the BHTA we have an opportunity for the AAC Industry to talk to the Mobility Industry on the subject of mounting communication aids and the attitude of some of the wheelchair suppliers. Ian Bullock from Mounts and More has been invited to the next meeting of the BHTA Mobility group.

STATISTICS

Member companies have agreed to share statistical information to create industry sales figures for AAC devices. Information for the years 2002-2005 are currently available and we would hope to be adding 2006 and 2007 shortly. It was agreed that the 'year' was whatever the company could supply, so from some it was calendar year and for other financial year, but it was agreed it would give some basic data.

The figures for sales in the UK are:

Unit sales of AAC Devices priced at £1 - £750:
1370 in 2003; 1518 in 2004; 1693 in 2005

Unit sales of AAC Devices priced at £751 and over:
803 in 2003; 832 in 2004; 955 in 2005

The increase each year is not surprising considering that these were the three main years of CAP. It will be interesting to review these figures once 2006 and 2007 are added, but it does point out that the number of devices funded is very low and clearly leaving many people with nothing. (Note that the figures were collated from information given by all BHTA companies that supply AAC devices; the data relates to the UK only.)

DECONTAMINATION

Following a discussion with Frenchay Hospital the suppliers are relooking at their decontamination procedures. This follows a comment by an advisor to the hospital that the normally recommended use of alcohol based wipes are good for MRSA but will not stop the spread of CDif – and for that, detergent based wipes are needed before the alcohol wipes. A suggestion about using bleach is also under consideration

eCAT NEWS

but the effect on electronic components is likely to be too damaging to make it useable. However, this whole decontamination issue should remind all involved in the use of AAC that all devices should be cleaned before transporting or passing on to another user (e.g. in an assessment situation).

BHTA 'KNOW YOUR INDUSTRY' COURSE

eCAT have requested that the BHTA include speech and language difficulties on their 'Know Your Industry' course, and they have agreed. They have been in touch with CM to get relevant data that they can use.

Dave Morgan, Chair of eCAT section, BHTA
Email: david.morgan@dynavox.co.uk

PRESS RELEASES

Communicate: SymWriter from Widgit

Widgit Software is proud to announce that *Communicate: SymWriter*, a new title in the highly acclaimed Communicate Series, will be available at BETT 2008. This new smart symbolising technology means parts of speech are detected and will automatically symbolise to the correct meaning of the word, with less need for manual corrections. Further information available at www.widgit.com

Inclusive's Communication Handbook

Inclusive Technology's new Communication Handbook is full of informative articles and advice as well as the latest in communication devices and software. There are articles on communication in the inclusive classroom, using multi-message devices, and visual scene displays; lots of hints and tips for using various speech output devices; advice on planning what vocabulary to use on voice output communication aids; case studies; project ideas and much more. Call 01457 819790 for your copy or email: inclusive@inclusive.co.uk

Clicker Switch Activities

Clicker Switch Activities is a CD packed full of fantastic purpose-built activities for switch users. These activities allow switch users to practise using switches in an engaging and fun way, whilst also providing valuable opportunities to evaluate the user's access method and to assess progress in a variety of tasks. Further information from www.cricksoft.com

John Bercow MP visits Possum

John Bercow MP, who is leading the government review on services for children with speech, language and communication needs, visited Possum to look, first hand, at the technology used by people with speech difficulties and to discuss many of the issues associated with the provision of devices. This was the first visit by Mr Bercow to a manufacturer of AAC devices. Further details from aac@possum.co.uk



DIARY DATES

11 January & 13 March 2008 Course Unit: Augmentative and Alternative Communication Contact ACE Centre North: 0161 684 2333 www.ace-centre.org.uk	Oldham	27 February 2008 The Voice of the Child: The Right to Choose Contact PCAS: 0117 9247527 www.pcas.claremont.bristol.sch.uk	Bristol
16 January 2008 Grid 2 Contact PCAS: 0117 9247527 www.pcas.claremont.bristol.sch.uk	Bristol	28 February 2008 Books for All: Making Accessible Audio Resources CALL Centre: 0131 651 6235 www.callcentrescotland.org.uk	Edinburgh
17 January 2008 Introduction to BoardMaker 6 CALL Centre: 0131 651 6235 www.callcentrescotland.org.uk	Edinburgh	4 March 2008 AAC SIG Contact PCAS: 0117 9247527 www.pcas.claremont.bristol.sch.uk	Oxford
18 January 2008 Using ICT to Sit SQA Exams and Assessments CALL Centre: 0131 651 6235 www.callcentrescotland.org.uk	Edinburgh	6 March 2008 An Introduction to AAC Contact ACE Centre: 01865 759800 www.ace-centre.org.uk	Oxford
29 January & 19 March 2008 Course Unit: Recording Contact ACE Centre North: 0161 684 2333 www.ace-centre.org.uk	Oldham	11, 12 & 13 March 2008 ICT and Inclusion Days CALL Centre: 0131 651 6235 www.callcentrescotland.org.uk	Aberdeen, Livingston, North Ayrshire
31 January 2008 Listening to Children CALL Centre: 0131 651 6235 www.callcentrescotland.org.uk	Edinburgh	12 March 2008 Moving on from PECS Contact ACE Centre: 01865 759800 www.ace-centre.org.uk	Oxford
7 February 2008 Clicker 5 for Students with Complex Needs Contact ACE Centre: 01865 759800 www.ace-centre.org.uk	Oxford	May 2008 CM Road Shows in Ireland (TBC) FREE Tel: 0845 456 8211 www.communicationmatters.org.uk	Cork, Dublin, Limerick
7 February 2008 Software Awareness Day (Sherston Software) CALL Centre: 0131 651 6235 www.callcentrescotland.org.uk	Edinburgh	27, 28 & 29 May 2008 Communication Matters Road Show: Scotland FREE Tel: 0845 456 8211 www.communicationmatters.org.uk	Glasgow, Edinburgh & Dundee
19 & 26 February, 4 & 11 March 2008 Course Unit: Assistive Technology Contact ACE Centre North: 0161 684 2333 www.ace-centre.org.uk	Oldham	18 June 2008 Communication Matters Road Show: Worcester FREE Tel: 0845 456 8211 www.communicationmatters.org.uk	Worcester

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: Communication Matters' vision is a world where speech, language and communication difficulties are not barriers to opportunity and fulfilment.

Our Mission: Communication Matters is all about enabling people to communicate. We value and promote 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 this Journal three times a year, reduced delegate rate at the Annual CM National Symposium, and all the benefits of ISAAC membership, including ISAAC publications at substantially reduced rates (AAC Journal, ISAAC-Israel Newsletter, AGOSCI News), and special delegate rates for the Biennial ISAAC International Conference. You can also access the member's area of the ISAAC website and, if you join early in the year, you will receive a Membership Directory.

What is ISAAC?

Formed in 1983, ISAAC is a multidisciplinary organization devoted to advancing the field of augmentative and alternative communication. ISAAC has over 3,000 members in more than 50 countries, including 14 national chapters in Australia, Canada, Denmark, Finland, French speaking countries, German speaking countries, Ireland, Israel, Italy, Netherlands-Flanders, Norway, Sweden, United Kingdom and the USA. The Mission of ISAAC is to promote the best possible communication for people with complex communication needs. The vision of ISAAC is that AAC will be recognized, valued and used throughout the world.

How do I become a Member?

If you live in the UK, you can become a member of Communication Matters (and therefore of ISAAC) by contacting:
Tel: 0845 456 211 admin@communicationmatters.org.uk
www.communicationmatters.org.uk

If you are outside the UK, you can become a member of ISAAC or subscribe to this Journal by contacting:
ISAAC, 49 The Donway West, Suite 308
Toronto, Ontario M3C 3M9, Canada
Tel: +1 416 385 0351 info@isaac-online.org
www.isaac-online.org



The Communication Matters Leadership Project

TOBY HEWSON, PETER ZEIN & LIZ MOULAM

Email: admin@communicationmatters.org.uk

This is an innovative and unique scheme - we are not aware of anyone else offering anything quite like it, so please read on and hopefully you, or someone you know, might like to apply to take part in this pilot project. The pilot will run for two years starting in July 2007.

Communication Matters wants to encourage everyone in the organisation to take an active part in the running of the charity. But, we recognise it is often challenging for people who use alternative and augmentative communication (AAC) to take on leadership roles either within Communication Matters or in other public, private and voluntary bodies. This Project aims to enable a person who uses AAC to be a either a non-voting contributor on the Board of Trustees or a co-opted Trustee to gain relevant experience to assist them in fulfilling their potential, and, where possible, to help to equip them to hold leadership roles in the future.

The Leadership Project is not intended to be the only role in which a person using AAC can join the Board of Trustees of Communication Matters. Some people who use AAC may feel they already have the experience to undertake the role without additional training, and this is fine! Trustees are welcomed from throughout the organisation and all Trustees are valued and supported whatever their experience. Toby Hewson, now the Deputy Chair, uses AAC and has been a Trustee since 2003.

The person selected to join the Leadership Project will be allocated an external buddy/mentor (ideally a former experienced Trustee of Communication Matters) who will take an advocate role only. The trainee will be given the same induction as all other Trustees. In addition, their buddy/mentor will be on hand during meetings of the Board of Trustees to explain protocols and background to discussion, and where necessary will arrange for them to receive individual

sessions with other members of the Board who can offer specific advice (e.g. finance, different committee work). *This section should be read in conjunction with the Trustees job description and person specification available on the website.*

There will also be the opportunity to join one or more sub-groups. The buddy/mentor, or where appropriate the Chair of the sub-group, will share how they put together agendas, take minutes, Chair the meeting and follow up on actions agreed. In this way, the trainee will get to understand the full range of tasks needed to run a committee.

Trustees are appointed for three years and co-opted Trustees for 12 months. It is intended that people joining the Leadership Programme would in the first 12 months undertake more general Trustee training and take the role as a non-voting contributor, and then in the second year stand as either a full Trustee or be invited as a co-opted Trustee. Once appointed, the trainee is eligible for expenses to cover attendance at meetings for themselves and for their personal assistant; this includes a mileage allowance or transport cost, hotels and food. The post requires a commitment of around 12-15 days per year which is on a voluntary basis. Details of the meetings are in the paperwork available on the website. Trustees do need stamina to cope with long meetings and applicants also need to make sure their personal assistants are aware of what is involved.

There are a few important things: applicants must be over 18 (a legal requirement to sit on the Board of Trustees), and must be either an associate member or be in the process of applying for associate membership which means an application must have been sent to Communication Matters during January 2008. In addition, the applicant needs to use AAC, either low tech or high tech, to communicate effectively. Finally, the application has to include the names of two referees who are individual

associate members of Communication Matters. This might all sound daunting but it is important that we fulfil the legal obligations for appointing Trustees. Please ask if help is needed with this.

The application can take any form that the applicant wishes - this should be a statement of no more than 200 words as to why the person wants to apply for the role, and may be a letter (hard copy or electronic), a visual, an audio tape or video. Audio and video applications should be no longer than four minutes.

All applicants must include the answers to the following questions in their statement:

1. Why I want this opportunity.
2. Why I am interested in Communication Matters.
3. My most important achievement to date.

If you wish to attend a Board of Trustees Meeting to decide if this is the opportunity for you, this can be arranged; however we will be unable to reimburse expenses for this. We will pay expenses for short-listed candidates to attend for interview.

USEFUL DATES IN 2008:

- Closing date for applications: 31 January
- Selection panel to meet: by 28 February
- Shortlisted candidates interviewed: week beginning 10 March
- Appointed Trainee begins role: 1 July

So we hope we have whetted your appetite. For further information or to download an application form, visit www.communicationmatters.org.uk There is quite a lot of paperwork to read as this is a formal position - some Trustees find it helpful to have a text reader to help them with the amount of reading involved.

If you have questions or want the application pack sent to you in the post, ring Patrick Poon on 0845 456 8211 or email admin@communicationmatters.org.uk *

20 Rules to DISCOVERY: Rules for Language Generation

TONY JONES

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There is only one consistent rule in English grammar; that rule is 'There are no consistent rules which may not be broken!' All rules of English grammar have their exceptions. These exceptions add to the problems that people with a learning difficulty already find in learning grammar. 'Mintax' is a method of overcoming this problem in an attempt to make any approach to grammar through Minspeak consistent and logical throughout. In this case, rules were not made to be broken.

Discovery is the new, updated, expanded, more powerful, even more exciting version of Language, Learning, and Living. Its internal structure employs a rule-based system known as Mintax to give a consistency and predictability to the approach to vocabulary storage. Once this logic is mastered, it becomes easier to predict the sequence involved in the storage of a particular section of the vocabulary.

All vocabulary has been stored using a combination of up to three Mintax functions: Category, Classifier, and Field

Icons do not take on function specificity, that is, there is no icon that is ascribed the role of Category and nothing else. Rather, icons take on the role of Mintax function by virtue of their positional aspect within any given Minquence (icon sequence). Thus, it is possible to develop a set of rules that apply consistently throughout any Mintax grammar within any Minspeak Application Program (MAP).

RULE ONE:

Each Minquence comprises a Category icon plus a Field icon.

The Category icon choice is the *superordinate* concept icon for a related group of words. An icon is considered to be a Category icon only by virtue of its relative position in any Minquence: The Category Icon always occupies the first position. Consider the following nouns: car, water, and dog. Each is assigned to a spe-

cific Category: car - transport; water - drinks; dog - animals. Each category is represented by a specific icon on the Discovery overlay: transport by an ambulance; drinks by cups; animals by a zebra. These icons represent the Category icon choice for the Minquence involved in generating the specific words identified.

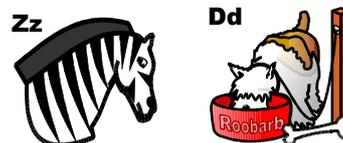


RULE TWO:

In a (two icon) Minquence, the first icon is always the Category icon which represents the superordinate concept group to which the chosen vocabulary unit has been allocated.

The Category icon is, on its own, insufficient to generate a particular vocabulary unit (word or phrase). It is followed by a Field icon. The Field icon represents the actual word generated. Continuing with the examples given above, *car* is represented by an icon of a car moving away from traffic lights, *water* is represented by an icon of a tap filling a bucket, and *dog* by an icon of a dog eating its dinner. Thus:

CAR	=	AMBULANCE	CAR
WATER	=	CUPS	TAP
DOG	=	ZEBRA	DOG



RULE THREE:

In a two icon Minquence the final icon is always the Field Icon which represents a specific vocabulary unit.

Thus, almost any common noun may be generated by a two icon Minquence. The average English noun is 6 letters long if the trailing space is included, giving Minspeak a 66% saving over conventional orthography.

Not only is the Category & Field icon rule used for nouns but also for other areas of syntax. Verbs, adjectives, prepositions, demonstratives, etc., all have a specific Category icon and separate field icons to represent the particular verb (adjective, preposition,) in question. Symbols which do not form nominal category icons but are used to generate other areas of syntax are known as *Characterised icons*. Characterised icons are special types of Category icons and illustrate the function of the area of syntax they represent. Consider the icon 'Dan, Dan, the mixed up man'. Dan is the characterised icon used in Discovery to represent the positive aspect of an adjective. Dan is an acronym for 'Describes A Noun'. Dan is half male and half female, half hairy and half bald, half sad and half glad... Dan is, thus, the chosen Category Icon for an adjective. DAN + JACKET, for example, will generate the word 'smart'. DAN + RABBIT (running in the rain) will generate the word 'fast'.



Many words have opposites. One of the *Classifiers* generates opposites. Consider a further example of the use of Dan:

DAN + WATCH = late

If the Classifier icon for opposite is added:

DAN + OPPOSITE + WATCH = early



The Classifier icon is the second icon in a three icon Minquence where the other components are the Category and Field icons.

RULE FOUR:

The Classifier icon takes the middle position in a three-icon Minquence of Category, Classifier and Field icons. It acts to modify the vocabulary unit generated by the Category and Field icons in a specified manner.

Another example of a Classifier icon used within Language, Learning, and Living (but NOT in Discovery) is the possible use of the VIDEO icon. The VIDEO icon acted as a sort of thesaurus within the system serving to generate a word of similar meaning (synonym) when used within an existing Minquence. Consider a possible example:

DAN + WORK = HARD

DAN + VIDEO + WORK = DIFFICULT

The rationale for this is not complex. A video makes a similar copy of an original. The remote control unit when selected changes the output of the video or the television. Thus, although it is the same television in the same position, the words and pictures it is transmitting are changed. Pressing the video icon changes the output of the Liberator even though it is essentially the same Minquence with the insertion of the Video icon.

Thus, the final grammatical area of Mintax is the *Classifier* icon. The Classifier sits between the Category and Field icons and seeks to modify the vocabulary unit generated by directing the retrieval process in a specified manner. Consider a further example in which all food is stored under the Category icon of 'Apple'. Given a two icon Minquence, and a 32 overlay, the maximum number of foods that could be stored would be identical to the number of available icons, i.e. 32. However, if a post modifier to the Category icon is introduced (some might argue a pre-modifier to the Field icon!) the potential of the system may be increased significantly (FOOD + POST MODIFIER (32 choices) + FIELD ICON (32 choices) = 1024). Of course, Discovery makes use of 144 locations with even greater potential!

If 'food' is the superordinate category, it is possible to identify a number of subordinate categories which can be allocated their own icons and, in effect, become sub-category icons. The subordinate categories for food might be; meat, vegetables, fruit, sweets, dairy produce, etc. Each of these areas can be allocated an icon:

CATEGORY	CLASSIFIER	FIELD	=	VOCABULARY UNIT
APPLE	APPLE	APPLE	=	apple
APPLE	APPLE	TOMATO	=	strawberry
APPLE	TOMATO	TOMATO	=	tomato

In the examples above, 'apple' is used as the Category icon to represent the superordinate concept of 'food'. It is also used, in the first two examples, to represent the classification (Classifier) 'fruit', and, in the first example only, as the Field icon to generate the vocabulary unit 'apple'.

The first example illustrates the fact that an icon takes a particular Mintax function only in relation to its relative position in the Minquence selected. In this case the 'apple' icon is used as Category, Classifier, and Field icons. In the third example, the 'apple' category icon is post modified by the 'tomato' classifier icon to select the 'vegetable' classification and to generate the vocabulary unit 'tomato'. However, while this example serves to illustrate the use of a classifier it is not an example that is used in the present version of Discovery where the sub-categories of food are treated as individual categories in their own right. However, it is possible to give many examples of the use of classifying icons from the program:

ZEBRA		DOG	=	DOG
ZEBRA	BABY	DOG	=	PUPPY



ZEBRA	MALE	DOG	=	HOUND
ZEBRA	FEMALE	DOG	=	BITCH
ZEBRA	DAN	DOG	=	CANINE
ZEBRA	HOUSE	DOG	=	KENNEL
ZEBRA	VERB	DOG	=	DOG (asin 'to dog)

Where 'baby' is the BATH icon, 'male' is the FIGHT icon, and 'female' is the GIRLS icon. Note how the DAN icon, used as the Characterised Category Icon for adjectives is now being used in a different role as the Classifying icon but is retaining its adjectival function.

RULE FIVE:

All icons may take on any Mintax function and may be identified by their relative positions in any specified Minquence.

It is possible to have an icon occupy all positions in a three-icon Minquence. A hypothetical example of this is given below:

CATEGORY	CLASSIFIER	FIELD	=	VOCABULARY UNIT
APPLE	APPLE	APPLE	=	apple

Where APPLE takes on a specific role depending upon where it falls within the Minquence: as Category (food), as Classifier (fruit) and as Field (apple).

At present, no use has been made of the same icon acting in all three guises: although the rules do not rule this out.

The Minspeak system makes use of one of differing overlay configurations: for example, 144 (16 x 9), 45 (9 x 5), or 8 (4 x 2). Given a 3-icon Minquence on a 144 overlay the possible number of permutations is $144^3 = 2,985,984!$ However, given the more restricting environment of a 45 overlay (and assuming all cells are available for icon use) the potential is $45^3 = 91,125$ which, given an average vocabulary use of 30,000 words is more than sufficient! Even at the 8 overlay level the Mintax permutations allow 512 vocabulary units to be stored.

It would appear that Mintax assumes a Minquence of not greater than 3 icons. Actually, Classifiers may be concatenated into strings of Classifiers (Classifier strings). This chaining effect only applies to the Classifiers but not to the Category and Field icons. Thus, Minquences can be four or even five icons in length! Why should it be necessary to go beyond a three-icon sequence when the number of permutations offered (in the 144 overlay) exceeds the number of words in the English language? The reason is grammatical: when a root word is generated via a Classifier then there may be additional word forms derived from it.

CATEGORY	CLASSIFIER STRING	FIELD	=	WORD
ZEBRA	FEMALE - SWING	DOG	=	bitching

The example shows that the word 'bitching' is formed as a variation of the word 'bitch' (ZEBRA FEMALE DOG) by adding the Present Participle Classifying Icon 'SWING'. The word 'bitch' is formed as a variation of the root word 'dog' (ZEBRA DOG).

RULE SIX:

Any Minquence that exceeds 3 icons must contain a Classifier string.

A Classifier string is determined by icon choice and string position. Where the classifiers are 'suffixes' the position of the icons within the string are fixed in strict accordance with the morphology of the chosen word. For example:

NUT&BOLT		YACHT	=	NATION
NUT&BOLT	GUESS	YACHT	=	NATIONAL
NUT&BOLT	GUESS BILLY	YACHT	=	NATIONALLY

Where the suffix '-al' is given by the GUESS icon, and the suffix '-ly' by the BILLY icon. It would not be possible to activate the Minquence NUT&BOLT BILLY GUESS YACHT because there is no such word as 'nationally'. Where the classifiers are not suffixes but subordinate categories, a positional hierarchy determines placement and function is given by concatenation of the individual functions of the classifiers:

ZEBRA		HORSESHOE	=	HORSE
ZEBRA	MALE	HORSESHOE	=	STALLION
ZEBRA	FEMALE	HORSESHOE	=	MARE
ZEBRA	BABY	HORSESHOE	=	FOAL
ZEBRA	BABY MALE	HORSESHOE	=	COLT
ZEBRA	BABY FEMALE	HORSESHOE	=	FILLY

Such that not only is it possible to generate the male and female names for specific animals, as well the names of their young, BUT also the {young male} and {young female} names.

Thus...

RULE SEVEN:

The function of a Syntactical Classifier string is determined solely by the choice of icon whose position in the string reflects the morphology of the generated word. The function of a subordinate Classifier string is given by conjoining the individual functions of the string.

Subordinate classifier icon strings may be viewed as a PRIMARY CLASSIFIER plus a SECONDARY CLASSIFIER. In a subordinate classifier string the primary icon placement is given to any common icon shared by the varying FIELD icon choices. Thus:

CATEGORY ICON	PRIMARY CLASSIFIER	SECONDARY CLASSIFIER	FIELD ICON
ZEBRA	BABY	MALE	ANIMAL
ZEBRA	BABY	FEMALE	ANIMAL

Note that BABY is common but the secondary classifier differs. Thus...

RULE EIGHT:

Subordinate classifier strings may be subdivided into primary and secondary (and tertiary) icon choices. The primary icon function will always be ascribed to any icon that is common to all subordinate strings.

It may have been noted that in all the examples given of Classifier strings the resulting Minquence has not exceeded a 4 icon length. It is possible however to go to five icons:

SHEEP				BEE	=	BE	
SHEEP	VIDEO			BEE	=	EXIST	
SHEEP	VIDEO	MASKS		BEE	=	EXISTENT	
SHEEP	VIDEO	MASKS	GUESS	BEE	=	EXISTENTIAL	
SHEEP	VIDEO	MASKS	GUESS	MARKET	BEE	=	EXISTENTIALISM

Where MASKS (-ent), GUESS (-al/-ial), and MARKET (-ism) combine to form 'entialism'. However, if desired (Zipf's law may be applied), the 'word' (Minquence) may be shortened to VIDEO MARKET BEE. This is known as the 'Salient Morpheme Rule' (See Below). However, even with a five-icon Minquence the savings over conventional orthography can amount to some 66%! However, as MASKS is also a category icon in its own right, generating words with the '-ent' suffix, it is possible to generate the final three examples above by the ellipsis (dropping) of the VIDEO icon.

MASKS				BEE	=	EXISTENT
MASKS	GUESS			BEE	=	EXISTENTIAL
MASKS	GUESS	MARKET		BEE	=	EXISTENTIALISM

Ellipsis is normally used in the context of phrasal analysis. However, in Mintax, ellipsis refers not only to the structure of the phrase BUT also to the structure of the word or its MINQUENCE (icon sequence). As certain words may require a ML (Minquence Length) of more than three icons, the SALIENT MORPHEME RULE may be applied and icons from the Minquence may be omitted. Consider the following example:

phantom	ELF	MASKS					
phantasm	ELF	MARKET	MASKS				
phantasmagory	ELF	MARKET	TOILET	MASKS			
phantasmagoric	ELF	MARKET	TOILET	LICK	MASKS		
phantasmagorical	ELF	MARKET	TOILET	LICK	GUESS	MASKS	
phantasmagorically	ELF	MARKET	TOILET	LICK	GUESS	BILLY	MASKS

Analysis of the morpheme component of the words generates Minquences as detailed above. While this set of words can be

Communication is nothing without context



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generated by activating this set of icons the *Salient Morpheme Rule* may be applied to considerably lessen the physical and cognitive loading.

Thus...

RULE NINE:

When the generation of any word involves the use of multiple concatenations of Classifiers (such that the ML > 3) there may be ellipsis of all but the SALIENT morpheme of the Minquence.

The Salient Morpheme is defined as the morpheme that differentiates a word from a like word of shorter morpheme length. In the above example the difference between 'phantasmagorical' and 'phantasmagorically' is the adverbial morpheme '-ly'. This is the Salient Morpheme and all others may be omitted. The Salient Morpheme is usually represented by the penultimate icon in any Minquence involving the use of multiple concatenations of classifiers. Thus the examples above may also be generated by the shorter Minquences below:

- phantom ELF MASKS
- phantasm ELF MARKET MASKS
- phantasmagory ELF (MARKET)* TOILET MASKS
- phantasmagoric ELF (MARKET TOILET)* LICK MASKS
- phantasmagorical ELF (MARKET TOILET LICK)* GUESS MASKS
- phantasmagorically ELF (MARKET TOILET LICK GUESS)* BILLY MASKS

Where the icons enclosed in brackets may be omitted from the Minquence. Note that although 'phantasmagorically' has an original ML of 7 this is still a saving of over 63%. However, the version to which the Salient Morpheme Rule has been applied only requires 3 activations, a more substantial saving of over 84%. The rule can only apply providing it does not clash with other word forms using the shortened sequence. If, for example, there was such a word as 'phantomly' this word have the icon sequence ELF BILLY MASKS which would force the full ML of 'phantasmagorically'.

As the Mintax approach is designed to be consistent, it might be argued that this imposes the use of deviant or illogical icon sequences (If the morphology of some English words is used as the example of form) within DISCOVERY (for example 'give-ing' is generated by *first* selecting 'ing' and *then* selecting 'give'). However, the Mintax of DISCOVERY, while performing a syntactic function, is essentially semantic in nature. That is it is *meaning* referenced.

Some examples will make this clearer:

- VERB + CUT = CUT SHEEP + CAKE = CUT
- VERB + EAT = EAT SHEEP + DOG = EAT



In order to generate a lexical verb the category icon SHEEP is invoked. The SHEEP is in action, it is jumping over something that looks suspiciously like the Blissymbol for action. The 'verb' marker (Category) precedes the icon that is used to specify a *specific* verb (Field). Thus, it may be seen that, DISCOVERY uses a TOP DOWN system of refinement, ever moving closer to the desired word:

- It's an animal... I press ZEBRA ... it's a dog... I press DOG
- It's an adjective... I press DAN... it's 'hungry'... I press DOG
- It's a verb... I press SHEEP... it's 'eat'... I press DOG
- It's a present participle... I press SWING... it's 'eating'... I press DOG

This approach of continual refinement is consistent throughout. When the verb tenses and aspects are generated the same format still (consistency) applies.

TENSE/ASPECT	WORD	CATEGORY	FIELD
PRESENT TENSE	eat	SHEEP	+ DOG
3rd PERSON	eats	LABEL	+ DOG
PAST TENSE	ate	BIG'ED	+ DOG
PRESENT PARTICIPLE	eating	SWING	+ DOG
PAST PARTICIPLE	eaten	BEN the HEN	+ DOG

A syntactical approach or one based on the morphemes contained within the individual words would suggest that these Minquences are back-to-front. 'Eat' - 'ing' should be DOG (eat) and SWING (ing), shouldn't it? NO! This is based on several erroneous assumptions:

- that the Mintax utilised in DISCOVERY is essentially syntactic;
- that a syntactic approach must equate to English morpheme order;
- that the Minquence must follow morpheme order;
- that Users will be confused by any other approach.

Firstly, the Mintax utilised within DISCOVERY is essentially meaning referenced (semantic). Second, a Minquence does not have to follow the same morphological order as in standard English: Mintax can have its own logical internal structure. Thus (and third), a Minquence does not have to follow morpheme order (see, for example, the infinitive form in *Unity*). Fourth, it has been shown in practice that Users are not confused. In fact, because of the consistency of approach (category + field) and, because the rationales are meaning referenced, the opposite is true. Indeed, for those strict grammarians out there, the approach could be:

It's a *past participle* form (therefore activate SWING) of the verb 'to eat' (therefore activate 'DOG').

The DISCOVERY Mintax approach would be:

What sort of word is it? It's a SWING word! (activate SWING) Which 'swing word' do we want? Eat! What do we need to press to say 'Eat'? Which animal is eating? That's right the DOG! (activate DOG)

Minspeak is a graphical system: the overlay is set out in a number of rows and columns and icons are positioned with a specific logic to enable faster retrieval of language. The latest Minspeak systems offer the addition of ACTIVITY ROWS. Essentially, adding 16 new locations to the older basic 128 overlay providing 144 options in all. Activity rows can be utilised in a number of ways but have been given several functions within DISCOVERY. First, they may contain vocabulary items. These will have an orange background colour. Why are these vocabulary items not contained in the main body of vocabulary on the overlay? There are two possible reasons: the main body is completely full and, more likely, their existing location has been occupied by another word or system function and they have, thus, been displaced. If a word is displaced it will come to occupy the position in the Activity Row at the top of the column in which it normally be found. If this position is already occupied (perhaps by another displaced word) then it will take the nearest available position in the Activity Row.

RULE TEN:

Vocabulary may be displaced by other vocabulary or by system functions. Where a displacement occurs, words 'float' to occupy the position in the Activity Row at the top of their column. If this position is occupied then they will seek to occupy the nearest available space. Such displaced words are colour coded in ORANGE.

In addition to vocabulary, DISCOVERY offers a number of keys that have specific functions. Such keys perform only this function and no other. These keys always sit on the Activity Row and

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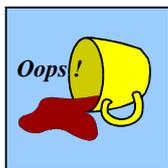
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are colour coded BLUE. For example, every page within DISCOVERY has a blue function key which returns the User to the Main DISCOVERY page from anywhere within the system. In this manner, the User can never become lost or trapped within the system.



Users will also need to Clear the Display and, from time to time, speak back the words that have been selected. These functions are contained within the blue keys on the activity rows.

RULE ELEVEN:

Specific Function Keys sit within Activity Rows and are colour coded blue. They occupy positions proximal to their location in earlier versions of DISCOVERY, floating to the top of the relevant column or the nearest available position. They have priority over displaced vocabulary.

Further positions within activity rows are taken by Classifying icons that do not have a grammatical function (and therefore do not sit in the main body of DISCOVERY) but, rather, represent a specific sub category of further nouns. For example, the CAR icon reveals a page containing words relating to the highways and byways of Great Britain. There are obviously a great many words in such a category; far more than can be contained on a 128 overlay.

There are parts of cars, literature relating to cars, makes of cars, road names to name but a few. In order to contain such a volume of vocabulary, it has been necessary to break it down further into secondary and tertiary groups: while there can only be one secondary group (that is activated after selecting the CAR icon), there can be many tertiary groups each with its own specific Classifying Icon contained on the secondary CAR page. There are three types of Tertiary icons: Verb Structure icons, Grammatical and Sub-Categorical. All such icons move to additional pages.



The Verb structure icons, because they from a distinct grouping, are coloured green, and the Grammatical and Sub-Category Classifying icons are coloured Pink. Pink Sub Category icons always sit on the Activity Row. Pink Grammatical Classifying Icons sit within the main body of the vocabulary and may displace words.

RULE TWELVE:

Verb Classifying Icons are colour coded green and occupy places in the body of the DISCOVERY overlay displacing vocabulary to the activity row which might have otherwise occupied the verb positions.

RULE THIRTEEN:

Grammatical and Sub-Category Classifying icons are coloured Pink. Pink Sub Category Icons always sit within the Activity row. Pink Grammatical Classifying Icons sit within the main body of the vocabulary and may displace specific words.



There are exceptions to Rule Thirteen, but the exceptions themselves are governed by rules. One such exception is where a word displacement would cause a rift in a spatial relationship between paired or otherwise spatially arranged vocabulary.

Consider the word pairing 'son' and 'daughter' from the FAMILY page. These words are represented by the BILLY icon and the LIZZY icon respectively. However, BILLY is also needed for the Grammatical Classifying Icon to proverb adverbial (-ly) forms of specific Family Words. However, if 'son' was displaced to the activity row the pairing of 'son' and 'daughter' on the overlay would be lost. Thus, in this instance, the pairing is kept and the Grammatical Classifying Icon is displaced within the main body of DISCOVERY (Not to the Activity Row).

RULE FOURTEEN:

Where the positioning of a Classifying icon displaces a word and the displacement causes a rift in a spatial relationship between words, the Classifying icon is displaced instead. The displacement is to the nearest available location within the main body of DISCOVERY (not to the Activity Row).

Normally, the selection of an icon that generates a word (this is usually on a white background) will return to the primary page. However, there are instances where it is desirable to stay on the page and select more than one item.

There are, in fact, two ways of achieving this: Firstly, most pages have a BLUE function key which maintains the page even after a white (return to main page) key has been activated. This is very useful if you want to practice the vocabulary contained on a specific page during a teaching session, for example. Secondly, PURPLE keys remain on the page but do not force subsequent activations from the page to do the same.

In the image above, taken from the DAN page (adjectives), the STAY key forces a stay on the page. Even if 'clean' was selected (for example), there would be no return to the Main page of Discovery. The Oops key must be used to move from the page following the use of the STAY key. The purple keys perform a slightly different function; after speaking their vocabulary item, they maintain the page. Thus, it is possible to say 'I am so very thirsty' in 5 activations and, on selection of the white 'thirsty' key return to the main page automatically.

RULE FIFTEEN:

Purple icons stay on the same page.

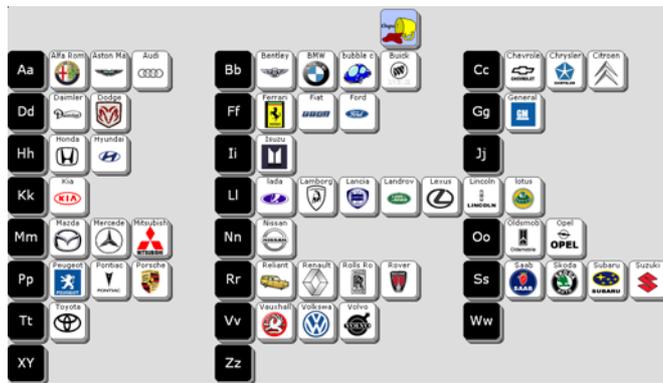
RULE SIXTEEN:

When the STAY key appears, it is used to remain on the page and overrides any return to the Primary Page. This could be used for teaching purposes, for example. The Oops key must be used to return to the Primary Page.

There are three forms of Tertiary Pages: those generated by the green Verb Structure Icons, those generated by pink Classifying Icons from within the body of DISCOVERY and, finally those generated by pink Classifying Icons from the activity row. The foremost two generate pages that follow the typical DISCOVERY Minspeak arrangement with vocabulary arranged in accordance with the main page structure: the latter Tertiary Pages (generated from pink Activity Row Icons), however, are arranged alphabetically unless there is some other more logical (spatial?) arrangement. The first two are known as Primary Tertiary Pages and the latter as a Secondary Tertiary Page.

RULE SEVENTEEN:

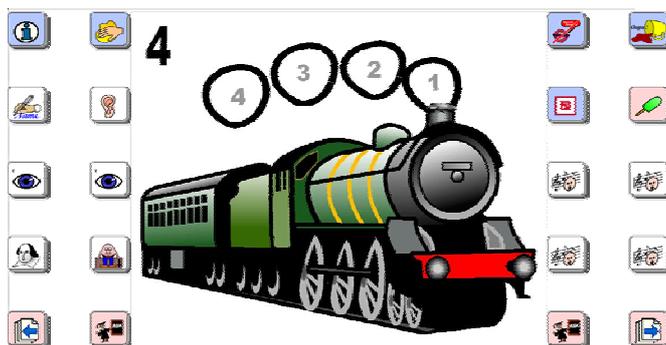
Primary Tertiary Pages are arranged in accordance with Minspeak principles. Secondary Tertiary Pages are arranged alphabetically (or by some other logical structure).



An example of a Secondary Tertiary Page is the 'car makes' page above. You will note that the structure is alphabetical and that the alphabet forms a part of the page to aid rapid retrieval of the specific word form required. All Secondary Tertiary pages are set out in this manner unless there is a good reason not so to do: for example, some words may follow a pattern (as in the days of the week) and they may be better arranged sequentially.

A further type of page is new to Minspeak systems. Known as a Visual Scene Display (VSD), it provides a background picture or photograph over which is positioned the 144 (128 + 16 Activity Row icons) buttons. The buttons are transparent - that is, they cannot be seen but, nevertheless, they are there and can be programmed much like any other button on any other page. Given a grid of buttons over a photograph, the 'picture' can now be made to appear to be 'interactive': touching a part of the picture can cause an event to occur (a spoken output or a system function). You might be familiar with this concept as 'hot spots'.

VSDs are so new that their use has not been defined! There are a great number of possibilities: for example, as a teaching tool; as a story book; as an environmental controller ... Such pages will also be rule driven within DISCOVERY but as yet, the full extent of those rules have to be defined.



The image shown above is a part of the training feature of Discovery. It is achieved by selecting the L (for Lick) icon which is used to represent 'Learning' the Discovery system. On selection, the overlay changes to display all 144 icons, offering a choice of any icon to the learner to study. If the TRAIN icon is selected the above screen appears. The icon is enlarged such that all sections of it are now clearly visible. Furthermore, a number of additional keys are made available. These keys contain fun items such as music, video, poems, PowerPoint presentations, all of which relate to the Train icon in some way to assist the User in learning Discovery.

RULE EIGHTEEN:

The Learning Lollipop icon has been reserved for Discovery training.



RULE NINETEEN:

Visual Scene Displays have their own unique structure and rules... Yet to be fully defined.

RULE TWENTY:

Icons are colour coded as follows:

- BLUE = FUNCTION icon
- GREEN = VERB STRUCTURE icon
- ORANGE = DISPLACED word
- PURPLE = STAY on page when this word is spoken
- PINK = MOVE to another page
- BLACK = ALPHABET Key
- WHITE = SPEAK vocabulary RETURN to Primary Page



SUMMARY AND CONCLUSION

No rule is broken within the new DISCOVERY structure. A rule driven structure allows for predictability and predictability assists automaticity.

It is hoped that existing Language, Learning and Living (LLL) Users will find the move to the Discovery easy to achieve. They will notice a significant increase in power given by the new ECO system and the new software structure. However, they will feel immediately at home because the vast majority of words from LLL are still located in the same positions using the same icon sequences.

Furthermore, User cognitive loading will be reduced because secondary pages no longer require a need to understand and memorise the rationale for storage: an icon for the actual word appears. Thus, 'hospital' is still generated by a combination of HOUSE and NURSE but the Field icon 'nurse' disappears and is replaced by a symbol depicting a hospital. Also the word hospital appears with the symbol to aid recall for those Users who have started to develop literacy skills (not to mention as an aid for staff). When Users move further away from the main page (Secondary Tertiary Pages), a move is made from the Minspeak arrangement to an alphabetical arrangement. Forcing a link between the various brands of cars (for example) and the main DISCOVERY page makes no sense and requires that Users learn this link: the new system avoids this entirely.

Secondary Tertiary pages cannot be considered Core Vocabulary: They are, by definition, fringe vocabulary and, as such, may only be visited by Users infrequently. They do not get in the way, they do not obstruct or confuse but are there if needed. Of course, one User's Fringe may be another User's Core. If a User is a Ford dealer and, thus, 'Ford' is an important word, used daily, then the Ford icon could easily be added to the Secondary Page summoned by the CAR icon.

DISCOVERY has been overhauled and updated to provide an easy-to-understand, User-friendly, powerful augmented communication system for the 2000s. Many LLL Users have been asking for next generation of this software. The existing version of LLL will also be available to those who do not wish to make any change. *

Tony Jones, PRI Liberator

A Case Study

What's Your Name?

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INTRODUCTION

We all know and appreciate the benefits of social interaction and peer support. Being in an environment with our peers and people who have similar abilities and needs as ourselves is reassuring and confidence building. We only have to look at the recent explosion in social networking on the internet to see that it is something which people value. As well as using these networks to communicate with existing friends it is also possible to join interest-specific groups and meet people this way. Even though people met through these groups are often strangers, the shared interest/ability means it seems safe to communicate with them. It is often daunting to be in a new social and work environment until we are able to establish a common interest with people, and then this allows us to relax.

Social networks and peer support are obviously equally important to people with disabilities and interacting with people with similar disabilities or - as presented in this paper, similar aids - can be extremely important. Communication aid users may feel isolated or frustrated by a lack of peers or role models since it can be difficult to establish this peer environment if you are a minority group.

Previous work has illustrated the benefits of both social networks and role models

(Musselwhite 2005, Blackstone 2005, Clarke 2005). There has also been development of functions such as the ability to tell jokes (O'Mara and Waller 1999, 2003) or partake in small talk (Cantine) with a communication aid - so enhancing a person's ability to interact in a more natural conversation.

This paper describes an initiative which has organised communication mornings within Doncaster, Rotherham and Barnsley to give students using communication aids an opportunity to meet other users and interact in a real environment.

BACKGROUND TO COMMUNICATION MORNING

The first communication morning was held at Sandall Wood School in Doncaster and was set up by an innovative member of staff. At that time the staff member supported a student using a communication aid who had solely attended mainstream school and a couple of students who had been integrated into mainstream from Sandall Wood School. When visiting them she found that they felt like they were 'the only people in the world with a communication aid' and for this reason wanted to give them an opportunity to interact with other users.

For the initial communication morning users were invited from Sandall Wood and

from mainstream schools within Doncaster. Along with the students, their parents, carers, speech and language therapists, teachers and anyone else involved were invited. This initial morning proved very successful - attendees were asked to complete a questionnaire and feedback was very positive. One student from mainstream continuously said 'he's got a talker like mine!' The results of the survey are shown in Table 1. Following this success, it was decided that communication mornings would be held every half term and Speech and Language Therapists from Sheffield and Rotherham contacted the school to ask to participate. This led to a second morning and after that Rotherham offered to take on alternate mornings to share the load. Now invitations for the mornings are sent to all the relevant schools, students etc. in Doncaster, the schools in Rotherham and the speech and language therapists in Barnsley and Sheffield.

This paper focuses on the third communication morning, held in Rotherham - the third morning was also attended by students from Barnsley as well as Rotherham and Doncaster.

STRUCTURE OF COMMUNICATION MORNING

The communication morning was held within the school hall. In the hall four ac-

tivities were set up. The first of these was for the students as they arrived. The activity comprised of laminated pictures of the people who were attending and students picked up a sheet of pictures and then tried to find the people on the pictures and ask them some questions using their communication aids. This initial activity introduced the principle of the communication morning, encouraging the students to use their communication aids to communicate with new people.

The students could then choose which of the other activities to visit and there was time for them to have a go at all of them if they wanted to. The activities were as follows:

Craft Activity

As the communication morning was held close to Easter the students had the option of making an Easter card or an Easter bonnet. In order to get the parts they needed to put together the card or bonnet they had to ask using their communication aids. They also had to make and communicate decisions, for example what colour of card they wanted. The resources to support the activities were very well put together and included prompt sheets for Minspeak giving the key combinations for both the Pathfinder and the Vantage and Vanguard. This aided vocabulary finding if some of the words were unfamiliar to the students. This gave a good opportunity to practice finding words in a real environment whilst enabling the students not to get stuck and hence not be able to communicate.

Game

The second activity was a game where each person took at turn at revealing a picture on the large computer screen using a large switch to progress the slides and reveal the picture. The students then had to guess what the picture was and shout out the answer when they knew it. The idea was that the fastest person to say the word was the winner. Again this promoted a fun environment where users could look for words which may not be so familiar to them and hence learn more vocabulary. In some cases the students would not necessarily have the exact word available on their communication aid and in that situation they would try and find something similar, this was again good practice for communicating.

Lotto

The third activity was Lotto - each of the students playing had a Lotto board with a series of pictures on. The lotto caller had a pile of pictures face down

and would pick off the top of the pile and then show the picture to all the students playing. If the student had this picture on their lotto card they had to say what the picture was using their communication aid and it was then marked off their card. As with normal lotto the aim was to be able to mark off all the pictures on your card. This activity enabled students of different ages and ability to partake because experienced, able users were asked to describe the picture in more detail before they could mark it off. An example of this was that one of the pictures was of a bunch of flowers, some users were able to use their communication aid to say 'flowers' very quickly and so they were then asked to say what colours the flowers were before being able to mark off the picture on their card.

As well as the structured activities there was a café stall set up enabling people to get drinks and snacks. The idea of this was again that the students would ask using their communication aids for the drinks and snacks and this was again well supported with the list of options available indicating Minspeak key combinations.

VIEWS OF PEOPLE INVOLVED WITH THE COMMUNICATION MORNING

A number of participants in the morning were interviewed in order to get information about how they perceived the morning and what benefits they felt it brought.

Founder - As mentioned earlier the initial idea for the morning had been to give often lone communication aid users in mainstream schools an opportunity to interact with other communication aid users, in a relaxed and safe environment. The students the founder was seeing in mainstream were often frustrated by having to use a communication aid rather than being able to talk like everyone else. Her main aims were to provide the students with an environment where they could meet other users and therefore realise that they were not alone and in addition to this provide an environment for more natural social conversation with peers and the development of friendships. The founder reported that she feels that for parents and carers it gives the oppor-

	Half-termyly	Termly	Six monthly	Yearly
How often would you like us to meet?	2	8	1	0
	Yes	No	Not answered	Maybe
Would parents like to hold their own meeting at the same time in a separate room?	2	3	6	
Would you be interested in a users social group in the area?	11			
Would you be interested in meeting older users to discuss their experiences	7		3	1
Would you like guest speakers to attend	4	4	1	2
Do you think we all benefit from our Communication Mornings	11			

Table 1 Communication Morning Survey

tunity to meet other parents and carers and also see other students with communication aids as often parents feel isolated too. In addition she reported that the event provides an opportunity for professional interaction and enables idea sharing.

Speech and Language Therapist (SLT) -

This was the first communication morning that the SLT interviewed had attended. She reported that she had found out about the communication mornings from other SLTs in the area and also from attending the Trent AAC Special Interest Group. She works in a school in Barnsley and at the time had three users of high-tech AAC who have no direct peer group within school in terms of AAC due to them being different ages, genders and abilities. She felt this would be a good opportunity for these students to meet other users who may be more their peers in terms of AAC. One of the students had also had her communication aid for a relatively short period of time and so it was felt that this would be a good opportunity for her to practice using it in a safe but more challenging environment.

Having attended the event the speech and language therapist felt that the main benefits were that it presented social role models for the students and also gave an opportunity for genuine peer communication. She also thought that there were benefits for the staff who attended to see how the various activities were set up, and to have a chance to discuss their experiences of organising such an event. This led to the teaching assistant who attended

with the SLT being keen to attend future communication mornings and also offer to help to organise one. The main possible improvement of the morning reported by the SLT was that it might have been helpful to group students on age or AAC experience, as one of the students she had taken along had wanted to meet more people her age.

Parent - The parent interviewed has attended all the communication mornings which have been held. She first found out of them as the founder of the communication mornings would go into her son's mainstream school twice a week to give him support with his communication aid and she would attend the lessons as well. She was excited by the prospect as, although for her son there was another person within his school using a communication aid, she felt it would be good for him to experience being with a number of other communication aid users. She reported that her son really likes going to the communication mornings as there are lots of fun activities, other people who are the same as him and you get a drink and a biscuit. Having attended more than one morning he knows other students who are going to be there and has built up friendships with these people. She said "he will often make a beeline for the same child and they will talk about football". She also said that she can tell that he is more confident when he is there.

From a parental point of view she reported that she feels that she also benefits a lot from the communication mornings. She is able to meet other parents who have students who are using a communication aid and who have common experiences, whereas in the school playground at her son's school she can sometimes feel out on a limb because the other parents are not experiencing the same issues as she is. She said that they are "such a good idea" and that there are no negatives, only positives. In an ideal world she would like the mornings to be more regular, but she appreciates that they take a lot of preparation.

Student - The student interviewed has attended all the communication mornings which have been held. He reported that he likes the things that there are to do, such as playing games and he likes having a biscuit and a drink. He said "I like to see everyone in hall, everyone has talkers the same as me". He said that there is nothing he doesn't like about the communication mornings. When asked if he had any other comments he said "little sad only me have talker happy when everyone have talker".

Another student commented, "I am embarrassed and shy because I am different to

normal children but I am the same as other children at the communication morning".

EVALUATION OF COMMUNICATION MORNING AGAINST THE CIRCLES OF COMMUNICATION CONCEPT

The Circles of Communication Partners concept was developed from Marsha Forest's Circle of Friends (Musselwhite, 2005). The Circle of Friends comprises four circles (Figure 1):

- Circle 1 - The Circle of Intimacy - defined as 'Those you cannot imagine living without.' (Virginia Commonwealth University)
- Circle 2 - The Circle of Friendship - defined as 'Good friends. Those who almost made the first circle.' (Virginia Commonwealth University)
- Circle 3 - The Circle of Participation - defined as 'People, organisations, networks you are involved with' (Virginia Commonwealth University).
- Circle 4 - The Circle of Exchange - defined as 'People you pay to provide services in your life.' (Virginia Commonwealth University)

This was used by Blackstone et al (Blackstone 1999) as the basis of Circles of Communication Partners which has five circles (Figure 2). The circles are as follows:

- Circle 1 - defined as 'Containing the augmented communicator's life partners. These relationships exist "no matter what" and may include parents/guardians, spouse, siblings, children and grandchildren.' (Blackstone 2001)
- Circle 2 - defined as 'The people whom augmented communicators trust and with whom they spend time and share thoughts, feelings and ideas. Relationships in the second circle are heavily dependent upon language and communication skills.' (Blackstone 2001)
- Circle 3 - defined as 'Favourite neighbours, colleagues and acquaintances. These relationships are often dependent on mobility and require language skills for communication with a wide range of partners about a large number of topics. They reflect how active a person is able to be outside their home.' (Blackstone 2001)
- Circle 4 - defined as 'Including people who are paid to interact with the augmented communicator. The family doctor, dentist, neurologist, speech-language pathologist and occupational therapist as well as personal attendants, instructional assistants, teachers and others.' (Blackstone 2001)
- Circle 5 - defined as 'The universe of unfamiliar partners' (Blackstone 2001)

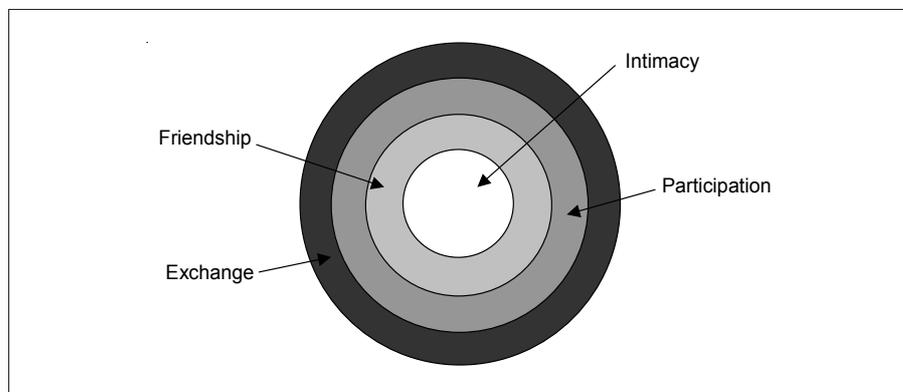


Figure 1 Marsha Forest's 'Circle of Friends'

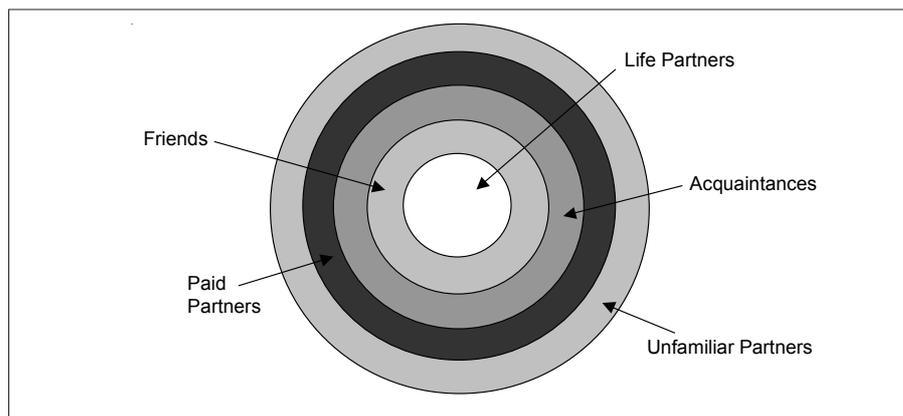


Figure 2 Sarah Blackstone's 'Circle of Communication Partners'

Research has shown that people who use AAC tend to have a number of people in their first and fourth circles but reduced numbers in the other circles (Reinhart 2005). When reviewing the communication morning it was felt it would be useful to look at how it fits with the Communication Circles. Dr Caroline Ramsey Musselwhite an Assistive Technology Specialist had previously observed that 'communicating with Unfamiliar Partners seems to be especially challenging and daunting for many AAC users'. With this in mind she had been involved in the setting up of monthly meetings of a group of AAC users, their families and friends (Musselwhite, 2005). This had proved successful in enhancing interaction in all the five circles.

Considering the communication morning in Rotherham it had aspects which facilitated all five circles - however it predominantly offered an environment to practice communication in the fifth and most challenging circle.

Parents were invited to the communication morning and this enabled those in Circle 1 to experience the situation of seeing other students using AAC and pick up techniques for using the communication aid in more social environments. Often communication aids are not used as much in the home environment as families have adapted to other ways of communicating, so giving parents the chance to see their children using the aid in this environment is useful.

Some of the attendees of the communication morning are friends and by attending the communication mornings together they are able to meet others but also perhaps able to communicate with each other in a slightly different environment. As this was the third communication morning, some of the students met students they had talked to at previous mornings (as reported by the parent who was interviewed). This aspect could be facilitated with further communication mornings with regular attendees. One attendee used it as an opportunity to visit her old school and catch up with acquaintances and teachers etc. These factors illustrate the communication enabling interaction with Circle 3 people.

As previously highlighted, people who use AAC tend to have good experience of communicating with people who fit into the fourth circle. A number of the students who attended the communication morning attended with staff from their schools and this gave a different environment for the staff to communicate with the students and also to speak to other staff and give ideas for activities to facilitate communication.

The communication morning definitely facilitated communicating with people who

fit into the fifth circle. The students were encouraged to meet other students and communicate with them using their communication aids but also to communicate with the staff organising the activities etc. These mornings give an opportunity for the students to communicate with unfamiliar people in a safe environment with lots of other people also practicing these skills. This enhances confidence as everyone is in the same situation.

As well as enabling the students to interact with strangers it also enables them to practice social skills, which is one of the four sets of skills which Janet Light (Light 2003) states that users of AAC must have in order to be competent communicators. These are skills such as eye-contact, turn-taking, responding and requesting objects or actions and this was encouraged by the facilitators of the activities.

PLANS FOR FUTURE COMMUNICATION MORNINGS

The success of the communication mornings has been evident and the students, staff and family members who attend seem to get a lot out of attending.

The plan with the mornings is for them to rotate around the three main areas (Doncaster, Rotherham and Barnsley). This will enable the organisational load to be shared and also provides variety in the mornings as the different places provide different activities, etc.

One of the attendees from Barnsley told her speech and language therapist that she had not enjoyed it because the majority of the students at the communication morning were younger than her. From this feedback it has been suggested that there could be a teenage area at the communication mornings and that it could be possible to invite role models for this area or have more teenage activities in this area. A planned way to do this is to use web conferencing to link with other teenagers using communication aids in different schools or colleges. One method being investigated is to use Skype and have an area of the communication morning set up to do this. The idea with the web conferencing would be to enable this to happen more regularly than the communication mornings, for example one lunchtime a week to enable friendships to develop. *

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ISAAC INTERNATIONAL AAC AWARENESS MONTH

All ISAAC Chapters worldwide were asked to raise awareness of AAC in October 2007.

In the UK, associate members of Communication Matters spent much time and energy staging some great local events:

Terry Gibson, her son **Michael Reed**, **Jake Lee** and other families and friends organised AAC awareness events in County Durham throughout October. BBC 'Inside Out' filmed Michael's talk and kids make sentences with flashcards and then spoke or wrote them on the Pathfinder or a laptop.

Lisa Pitts and colleagues at **King's College Hospital** invited staff in the Paediatric and Acute departments of the hospital to a workshop to learn about AAC & low tech aids.

Deborah McCluskey and **Sharon Roberts**, at **Holbrook Primary School** in Hampshire, produced and set up a display in the school's meeting room, and organised several day events to promote 'communication awareness' in the local community.

Eliada Pampoulou, of **Widgit Software**, and the staff of **Southam Primary School** organised activities for two Year 3 classes to experience how to communicate using means other than verbal communication. In Cyprus, Eliada also worked with a group of 9-13 years old able-bodied pupils and their teacher to play a game where symbols and signs were the main means of communication; the pupils then wrote about their experiences and made a Powerpoint presentation.

Visit www.isaac-online.org/ie to find out what happened worldwide during the AAC Awareness Month.

The Pupil's Press

An overview of the development of a symbolised newspaper

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THE PUPIL'S PRESS

The Pupil's Press is a half-termly newspaper developed by pupils in the Seniors at Lancasterian School. We meet once a week during lunchtime for our News Club. Information is generated in these sessions towards the development of *The Pupil's Press*. This article explores the issues addressed when developing a school Newspaper and examine our strategies for embedding the Newspaper into school-life.

BACKGROUND INFORMATION

Lancasterian School is a school for children with physical & medical needs aged 2 to 16 years. It is in the Manchester area and has a strong therapy team.

A need was identified for a social use of language group in the seniors at school and through discussion the idea of a newspaper emerged. It was agreed that this would provide a tangible outcome to group sessions, but would allow the speech and language therapist to work on the language skills required. It has become a collaborative venture between speech and language therapy & teaching staff. The News Club was established in April 2007.

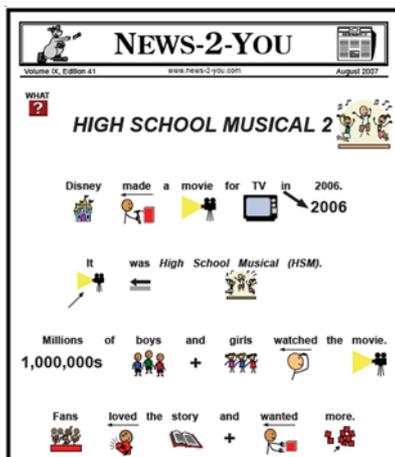
RESEARCH: WHAT SYMBOLISED NEWSPAPERS ARE CURRENTLY AVAILABLE?

Before embarking upon the development of a school newspaper, the newspapers

that are currently available were explored. The authors were particularly interested in newspapers available for pupils requiring visual support to language. This would allow us to consider the approach we wanted to adopt at Lancasterian School for our newspaper.

The newspapers we found currently available are described below.

News-2-You



This is a symbolised newspaper developed in the USA. *News-2-You* papers are created on a weekly basis. Each pa-

per follows a consistent structure providing information related to specific questions:

- *What?* What is happening in the news.
- *Where?* A place in the news.
- *Who?* Information relating to a specific person in the news.

There is always a Joke, a Recipe and a Quiz in each edition. Schools can subscribe to the newspaper and use the information for topic work and activities in school.

Comments:

We liked the structure of the *News-2-You* paper, but the content is very American and the symbol system used is different to those used in school.

It is a unique symbol set exclusive to *News-2-You*, called *Symbolstix*. It has some similarities to PCS, but is not readily available in the UK.

It was felt that this could make the development of supporting activities related to the newspaper, more difficult to create. It may also have been potentially confusing for the students who are currently using a combination of *Widgit Rebus* and *PCS* symbols in school.

E-Live



This is an online paper produced by *Widgit Software*. The symbol system was therefore more recognisable for our students. It uses *Widgit Rebus* symbols, photographs and some *PCS* symbols if required. *E-Live* also follows a set structure, containing articles related to the *News, Films, Fun stuff, Games, Special Features, Community Information & Recipes*. An example of the main contents page and 1 of the News articles – on *Foot & Mouth Disease* – is shown. *E-Live* is produced monthly.

Comments:

We liked the structure yet again and the content was more anglicised which was an added benefit over *News-2-You*. The symbol system was more appropriate for our students, but we wanted our pupils to have more ownership over the information they wanted to include in a newspaper. We wanted to find out what was meaningful and important to them. This would allow us more effectively to elicit the social interactional skills we wanted to focus on in our group.

There are other organisations such as *Scope* and *Cutting Edge Publications*, which endeavour to make information more accessible for people with disabilities. However, none of these produced newspapers relevant for our pupils.

DEVELOPMENT OF THE PUPIL'S PRESS

We decided to create our own newspaper, to which the pupils could contribute their ideas. However, finding a suitable time within the pupils' day was not easy!

At Lancasterian School, pupils follow the National Curriculum, so finding time to deviate from the usual curriculum activities was not easy. We decided, therefore, to introduce a News Club during the lunch hour. We recognised that this was not

ideal, but it at least gave us a starting point for developing the concept of our newspaper.

Members of the News Club were identified mostly through their SALT needs, but some pupils requested involvement in the News Club. It was agreed that a combination of verbal and non-verbal pupils would be beneficial. The more verbal pupils could act as positive role models to the other less verbal pupils.

NEWS CLUB

News Headlines were generated during each News Club session. Each member of the group adopted the role of a reporter to gather information related to a specific news item. We incorporated a structure similar to those used by *News-2-You & E-Live* - pupils were encouraged to categorise their news item according to whether it was *World News, UK News, Manchester News, School News, Sports News*.

The pupils found this very useful to organise their ideas. Symbols were used to reinforce each of these categories.



Members of the group were encouraged to provide more information to extend each headline. This exercise allowed the therapist to work on their social use of language skills, i.e. *use of eye-contact & turn-taking skills, giving information, interpreting meaning, asking questions*. Group members were encouraged to maintain a conversation as they interacted with each other. It was a functional way of eliciting the desired communication skills. Visual strategies were used to support the language used. A combination of *Widgit Rebus & PCS* symbols were used to focus pupils' attention and structure the information they provided. The symbols also helped sequence their ideas in a logical manner.

The therapist used *Communicate: In Print* (*Widgit Software*) to record information and pupils were videoed giving their News Reports. The first edition of the *Pupil's Press* was released in May 2007.

EMBEDDING THE PUPIL'S PRESS INTO THE CURRICULUM

It became increasingly apparent that the News Club did not allow sufficient time

to develop *The Pupil's Press* Newspaper as effectively as we would have liked. Much of the development time fell to the Speech & Language Therapist and ideally we would have preferred the pupils to have more direct involvement in this process.

The speech and language therapist, therefore, identified potential links between the ICT Accreditation Programme followed by the Seniors at Lancasterian (ASDAN) and the needs of *The Pupil's Press*. Specific ICT core skills were considered useful as follows:

- Understanding information around us
- Representing information graphically
- Finding information using a search engine
- Creating pictures – ie: using Google Images
- Using text to convey information
- Creating pictures using text & images
- Collecting & presenting information

These skills could be used to gather more information to support headlines generated in News Club.

Through discussion with teaching staff and members of the Senior Management Team additional time was identified for the development of *The Pupil's Press*. One ICT session a month was allocated to allow pupils to gather information to augment the news items provided by the News Club. This served a dual purpose – it allowed the News Club to gather more information to create *The Pupil's Press* and gave pupils the opportunity to develop their ICT skills as above.

EMBEDDING THE PUPIL'S PRESS INTO SCHOOL LIFE

The Pupil's Press is currently produced once every half term. It is released in Lancasterian School's Coffee Shop, a weekly session allowing pupils an opportunity to develop Life Skills. School staff, members of the public and pupils attend the Coffee Shop.

Copies of *The Pupil's Press* are also available in the dining areas at school.

OUTCOME

The News Club proved to be a successful means of eliciting specific communication skills from pupils.

The use of visual strategies was effective for both verbal & non-verbal pupils. We identified a noticeable increase in pupils' levels of confidence to give information.

Pupils particularly enjoyed being videoed and rose to the occasion by giving their News Reports with pride, often under their own stage-names! Our Sports Reporter has

been known to introduce himself as Ole Gunner Solskjaer!

Pupils enjoyed having a sense of responsibility for collating information on a specific topic. They were creative in their approach to the information provided and enjoyed finding out more information about a given topic.

The News Club improved interaction between pupils, and in particular their ability to maintain a conversation. Their awareness of current affairs was being developed continually and pupils became less egocentric in their ideas; they were able to talk about a wider range of topics.

THE WAY FORWARD

The *Pupil's Press* will continue to be developed through the News Club and ICT sessions combined.

We hope to vary the pupils participating throughout the year, to give as many pupils as possible the opportunity to be involved.

We would like to incorporate a regular quiz feature to encourage pupils to interpret the content of *The Pupil's Press*. This may also be a way of involving more pupils throughout school. This could provide a step towards our ultimate aim that *The Pupil's Press* provides a means of topic discussion in class. This has been a successful outcome with the *News-2-You* newspaper in the USA.

Following the positive response to the videoing of our News Reports, we would like to use our Environmental Control Room in school to create a Newsroom. This could be used to convey information throughout school and improve pupils' awareness of current affairs generally.

Finally, we recognise that by the time *The Pupil's Press* is published, the news is no longer current. We believe the opportunity to generate the ideas and information for *The Pupil's Press* provides great benefits to the ongoing development of pupils' communication skills and there-

fore, warrants the continued development of *The Pupil's Press* as a News Review publication. We also aim to overcome this issue by encouraging pupils to extend their ideas related to a specific topic by adding their own views/comments.

For example, Figure 1 below shows a recent edition of *The Pupil's Press* featured an article on the tornadoes in Britain, which had been described as a scene from 'The Wizard of Oz'. Our reporters were encouraged to interpret this information and explain why it had described in this way. *

Alli Gaskin
Speech & Language Therapist
Helen Bell
Teaching Assistant

USEFUL WEBSITES

- www.widgit.com
- www.news-2-you.com
- www.scope.org.uk
- www.cuttingedgepublications.com

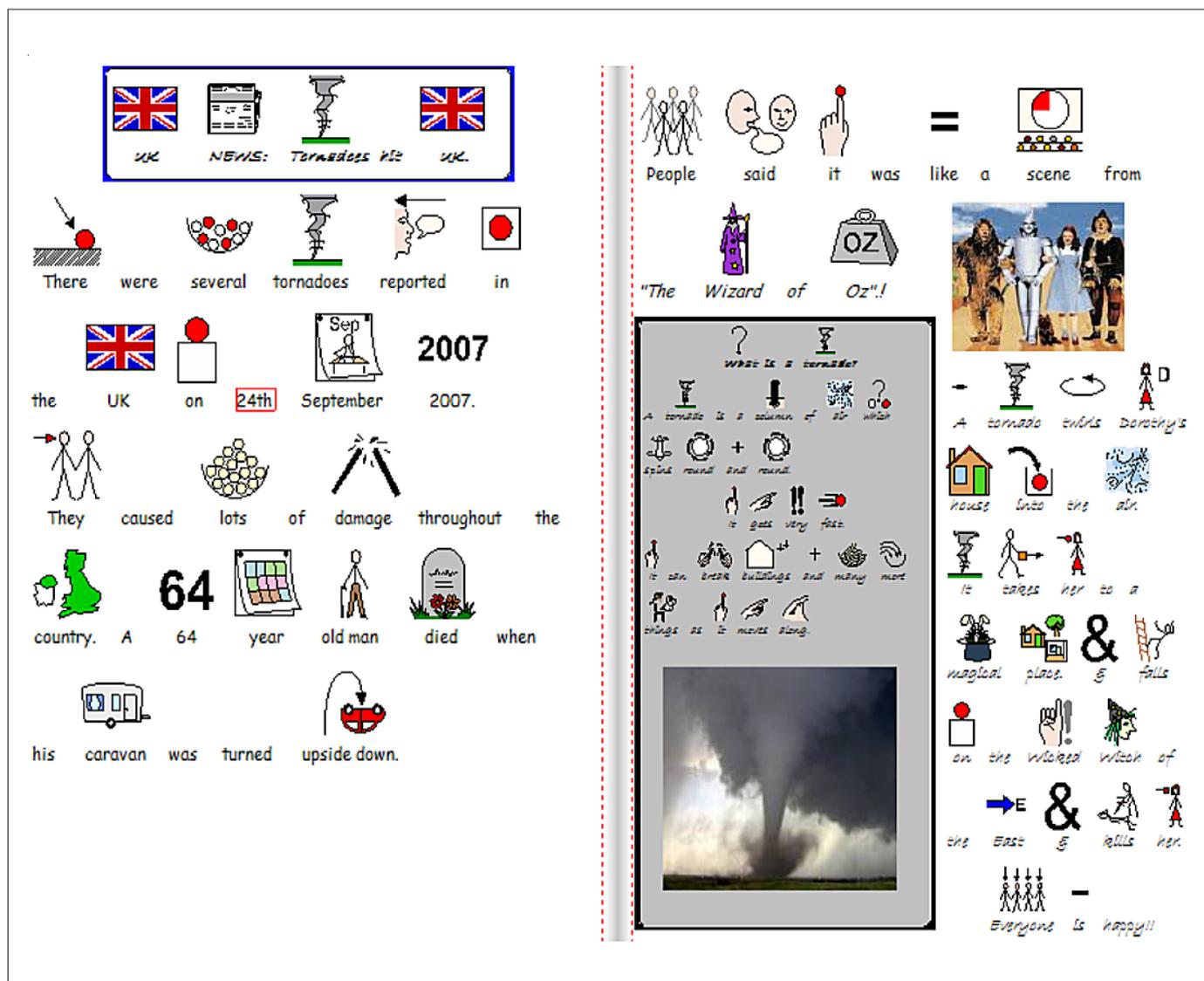


Figure 1 An article on tornadoes in Britain in *The Pupil's Press*

ECO™ -14

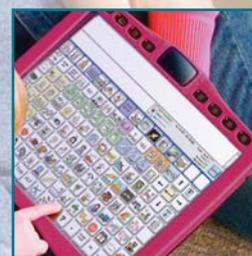
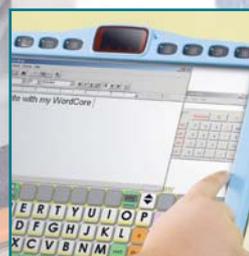
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