

# Dyslexia Review

THE JOURNAL OF THE DYSLEXIA INSTITUTE GUILD VOL.16 NO.2



Spring 2005





# DYSLEXIA REVIEW

The Journal of the Dyslexia Institute Guild

## Editorial

As for so many specialist dyslexia teachers, my entry into this field was via Alpha to Omega. It is especially poignant that this issue featuring a tribute to Bevé Hornsby is the one which also goes to the Hornsby Friends for the first time. Thank you to Maggie Snowling for the remarkable job she has done in collecting and collating the many tributes from past colleagues and fellow dyslexia travellers.

Knowing what the Guild members want in Dyslexia Review is a bit of a guessing game. I've had a dilemma this time regarding John Rack's *Incidence of Hidden Disabilities in the Prison Population* research. It is much longer than we normally feature in Dyslexia Review and so I set about editing it down to the normal 2000-3000 words. The result was not satisfactory and meant editing out all of the interesting sections such as the review of previous studies - so I abandoned that process. I decided that, although we do not normally publish articles longer than 4000 words, there was no intrinsic reason why we shouldn't, provided the content merited the space. In this case, the high interest level the research provides is justification in itself. I do hope you agree!

*Margaret Rooms*

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DYSLEXIA REVIEW is published three times each year by:  
THE DYSLEXIA INSTITUTE,  
Park House, Wick Road, Egham, Surrey, TW20 0HH Tel: 01784 222 300

The Dyslexia Institute is a nationwide organisation offering advice, assessment and teaching to dyslexic people, post-graduate teacher training, short courses and publications on specific learning difficulties (dyslexia).

THE DYSLEXIA INSTITUTE is a registered charity no. 268502

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COVER: *Bevé Hornsby receiving her MBE*

# Reach for the Stars: A Tribute to Bevé Hornsby (1915–2004)

COMPILED BY MAGGIE SNOWLING WITH CONTRIBUTIONS FROM COLLEAGUES AND FRIENDS

Bevé Hornsby was a distinguished speech and language therapist, psychologist, and educator, who played a pioneering role in the understanding of dyslexia nationally and internationally. Through her writing, teaching and training she brought the problems of people with dyslexia to recognition, and her work stimulated rapid developments in the field of dyslexia and related language-learning disorders. Furthermore, as the eulogies printed below make clear, she had her own 'special' way of enabling the growth and career development of many of the people with whom she worked.

Born in 1915 in Camberley, Surrey, Bevé showed early academic promise at school but chose not to go to university. Many years and four children later, she began training as a speech therapist when she was 50 years old. After qualifying in 1969, Bevé started work at the 'Word Blind Clinic' at St. Bartholomew's Hospital under the direction of Maisie Holt. After an amazingly short apprenticeship, she took over the clinic two years later when Maisie retired. The rest is history.

Bevé at Barts



The clinic quickly became known endearingly as *Bart's Dyslexia Clinic*, and it grew rapidly in the following ten years, expanding from a small corner of the Department of Psychological Medicine (where sometimes children awaiting their dyslexia assessments sat alongside depressed patients awaiting ECT!), to a Department in its own right.

After retiring from St. Bartholomew's at the age of 65, Bevé set up the Hornsby International Dyslexia Centre where she and her team continued to offer teacher training courses, as well as professional services to children and adults with dyslexia. Convinced of the need to teach children to read

using multi-sensory techniques from the outset, she later founded Hornsby House School to offer her own brand of education to typically developing children, alongside children at risk of reading difficulties. Notwithstanding all her many achievements, it is without doubt that Bevé's lasting legacy will be the book she wrote with Frula Shear, '*Alpha to Omega*' (now in 5<sup>th</sup> edition), that has been and will continue to be used by generations of teachers and dyslexia-therapists. Her many contributions to Dyslexia were honoured publicly in 1997 by the award of an MBE. It is quite impossible in a single article to do justice to Bevé's achievements. What follows is a chronicle of her professional life, told through the eyes of friends and colleagues, and replete with anecdotes!

## KEY DATES

- 1915 Born Camberley, Surrey
- 1969 LCST: Kingdom Ward College of Speech Therapy
- 1971 Appointed Head of the Word Blind Clinic, St. Bartholomew's Hospital (later the Dyslexia Clinic)
- 1973 MSc in Human Communication, University of London. *The predictive value of a range of pre-school tests on future written language difficulties*  
Began training teachers and speech therapists to teach children and adults with dyslexia (a one-year course including supervised teaching)
- 1974 *Alpha to Omega* (co-authored with Frula Shear) first published
- 1978 MEd. University of Bangor
- 1982 PhD. University of London. *Lateralisation of language areas in dyslexia*
- 1983 Hornsby International Dyslexia Centre established  
*Overcoming Dyslexia* first published
- 1988 Opened Hornsby House School  
Elected Fellow of the Royal College of Speech and Language Therapists
- 1997 Awarded MBE for services to dyslexia  
Awarded Honorary Professorship: Cheltenham & Gloucester College of Higher Education
- 2001 *Dyslexics I have known or Reaching for the Stars* first published

## FRULA SHEAR, CO-AUTHOR OF ALPHA TO OMEGA REMEMBERS THE EARLY DAYS

I first met Bevé at Bart's Hospital about 35 years ago. She was already a qualified Speech Therapist, and I was a Trainee Therapist; we were working with children (at that time they were called Word Blind) under the late Maisie Holt, truly a pioneer in the field.

When we had learned everything we could from Maisie, Bevé encouraged me to take every training programme on offer. Meanwhile she was hoping to take over the Clinic herself. Then one day she handed me a loose-leaf prototype programme and asked me to 'fill in the blanks' and add any ideas of my own. Eighteen months later, we had the first '*Alpha to Omega*' (christened by Bevé's late husband, Jack and dedicated to him at my suggestion).

'*Alpha to Omega*' was sent to every publisher we could think of, and finally Heinemann offered a contract! We had a real





book at last. We little thought then that it would go into five editions and continue to sell steadily for the next thirty years. Meanwhile Bevé obtained an MSc in Human Communication (doing her studying in the evenings and writing her thesis at weekends). By now she was the Head of the re-named Dyslexia Clinic. She made me the Senior Therapist with the unofficial title 'Training Director'. As Bevé's work became better known, teachers, mothers and therapists flocked to train with us as therapists. Bevé and I lectured up and down the country - everywhere people asked us to go and as far as Australia (where Bevé managed to see her beloved youngest son Chris).

Bevé and I were friends from the start, attending each other's family functions, helping when illness or death struck. Memories - there are so many - her voice on the 'phone 'Darling Frula will you?' Her giggle so infectious, above all her unremitting passion to guide and teach the children who were falling behind their peers. She had a wonderful presence, was strikingly attractive, with a beautiful voice, none of which faded with age, and she was a driving force.

#### JANE TAYLOR (HANDWRITING ADVISER) ONE OF BEVÉ'S ORIGINAL TEAM OF THERAPISTS WRITES:

My interest in dyslexia started because our foster son was having difficulties in learning to read, and I decided it would be good to observe different people's methods of teaching such children. I first met Bevé when I visited the Dyslexia Clinic in 1974. Frula Shear and Trevor Ford were working for her at that time and *Alpha to Omega* was in its infancy. I was quite surprised when Bevé actually asked me to work for her because I had no experience in the field! However, I was a trained Occupational Therapist who had worked with children with cerebral palsy and obviously my skills sparked Bevé's interest. It was in at the deep end but, by using her structured scheme, I was soon able to pinpoint clients' difficulties and begin to plug the gaps. I admired the way parents were always involved in children's lessons and was impressed with the way their anxieties could be channelled constructively into assisting their children in positive ways...

#### THREE FORMER BARTS' STUDENTS REMEMBER THE EARLY TRAINING COURSE:

*Jillian Brabams (dyslexia therapist and teacher) writes:*

It was a pleasure and a surprise to meet Bevé Hornsby in the late 1970s. I knew, of course, that she had written '*Alpha to Omega*' and set up the teacher-training course for dyslexia therapists in 1973 at St Bartholomew's Hospital. What I had not expected was the exquisitely groomed, smiling and very kind woman who welcomed me enthusiastically to this course.

I was one of an extremely varied group ranging from Sister Mary John, of blessed memory, herself starting out on a new career at the age of sixty, to mothers of dyslexic children and teachers like myself who wanted to learn why these bright children were not learning literacy skills. It was an enormous privilege to be part of that group which flourished and went on to spread the word in a variety of settings. Others will chronicle her many academic successes and her organising ability; but it is her alertness and lightness of touch together with her smile that will be a lasting memory for me. She is for all of us the most wonderful role model.

*Hazel McKay (a life-long colleague of Bevé's at the HIDC) was a parent who enrolled on the Barts course:*

I first met Bevé Hornsby when I visited St Bartholomew's Hospital in 1977 with a good friend whose child was seen at the Dyslexia Clinic. With me was my son James, aged seven. James was very bright with regard to reasoning skills but doing extremely poorly at literacy and most frustrated at school. I listened in on discussions between Bevé and my friend. Finally I said to Bevé 'Please could you assess my son James?'

'Of course, my dear - let me check my appointments diary'.

Alas a six-month wait. Imagine my delight when shortly after this, I received a 'cancellation' opportunity. Up until then, James and I had been written off by our Local Authority. They considered James's troubles were because I was a single parent and a fussy mother who believed my son was brighter than he was. Imagine my delight with Bevé's report: *A 'spikey profile' but very superior verbal IQ, severe coding and memory deficits.*

In her inimitable way of 'can do' and positive attitude Bevé immediately enrolled James on a programme with a senior therapist. I made a further inquiry: 'Could I take the Dyslexia Therapy Diploma?' Yet again, 'Of course, my dear'. On graduating from the course, I became one of the Bart's therapists. From that time on, over a 28 year period, Bevé with her generosity, trust and enthusiasm was my mentor and friend. James for his part went on to reach amazing intellectual heights as a research economist.

*Nata Goulandris (University College London) remembers the training course:*

In the late 1970s the little Dyslexia Clinic at Bart's was an exciting and innovative place. Numerous people came to learn about dyslexia and how they could help children who could not read. Some were teachers, others were desperate mothers of children who had been diagnosed as 'dyslexic' whilst others were just housewives interested in what appeared to be a strange phenomenon - bright children who had failed to acquire literacy in line with their intellectual abilities.

Even now the teacher training at the original Bart's Clinic remains an outstanding model that many subsequent training programmes would do well to emulate. For example, the phonetics and linguistics module was compulsory so that by the end of the course all trainees were able to use phonetics to transcribe learners' errors or mispronunciations. The actual course, superbly taught, raised linguistic awareness well beyond the level expected of most practicing teachers and proved an eye-opener for most trainees. Similarly the psychology of learning and reading and spelling gave trainees the appropriate psychological background to enable trainees to pinpoint the problems encountered by their pupils and students.

Another extremely valuable aspect of the course was the requirement that each trainee should observe as many therapists (teachers) as possible to gain experience of diverse teaching styles and alternative instructional avenues. The roster of teachers was superb and included (at the time I took the course) Bevé Hornsby herself, Frula Shear, Trevor Ford,



Paula Stanford, Hazel McKay, Patricia James and Jane Taylor. Each had a unique teaching style and we quickly learned that even though we were using *Alpha to Omega* as the framework for our teaching, there were many alternative ways to deliver the requisite cumulative, structured programme.

Pupils came from all over the country. Some travelled several hours each way to have a 50-minute session with one of the therapists. The teaching sessions were generally very beneficial and although many schools objected to pupils absenting themselves, they almost always recognized the progress and the increased confidence that ensued. Apart from the *Alpha to Omega* programme with which most special needs teachers are familiar, Bevé introduced the practice of allowing parents and even siblings to attend the lesson so that they could help the pupil with their homework. In many cases it was evident that the parents' problems with literacy were equally, if not more severe, than those of the person attending the classes – so the therapist was teaching two for the price of one! Sadly I have rarely seen this extremely successful practice in use elsewhere. Bevé's contribution to our understanding of dyslexia and how to teach individuals with reading difficulties has been enormous. Those of us who were fortunate enough to be trained by her will always remember her awe-inspiring dedication, abounding enthusiasm and irresistible charm.

Bevé driving a stretcher car in World War II



**THINGS YOU DIDN'T KNOW ABOUT BEVÉ HORNSBY:**

- She held a pilot's licence
- She was a student-member of the corps de ballet in the Vic Wells Ballet Company
- She drove ambulances during the Second World War
- She was a qualified teacher of ballroom dancing

**TIM AND ELAINE MILES (UNIVERSITY OF BANGOR) WRITE ABOUT BEVÉ AND HER TIME WITH THEM IN BANGOR:**

We first met Bevé in the 1960s. She originally trained as a Speech Therapist, which was to prove very significant. Her early experience of dyslexia was at the clinic at St. Bartholomew's Hospital, where 'therapy' was carried out by the eccentric Maisie Holt – a woman who was very secretive about her sources. Because Bevé wanted a more comprehensive training, she later went out to train at the Scottish Rites Hospital in Dallas, Texas where she gained insight into the Gillingham Stillman programme. Within a short time, Bevé (with Frula Shear) had adapted the methods of Anna Gillingham and Bessie Stillman for use in Great Britain. The result was the dyslexia classic, *Alpha to Omega*. The fact that she based *Alpha to Omega* on the spoken language gave her programme a distinctive slant. Whereas nowadays it is taken for granted that this must be the basis, this was not the case at the time.

In the late 1970s, Bevé came to Bangor to take a full-time course leading to the degree of M.Ed. By this time she was

very experienced and *Alpha to Omega* had already been published. Therefore she was in the unusual position of being a student on a course that had this publication as one of its prescribed books! For her M.Ed. dissertation she collected data from St. Bartholomew's Hospital, the Dyslexia Institute in Staines and the Dyslexia Unit at Bangor. After her dissertation had been accepted, Tim joined forces with her to write up these data for the *British Journal of Educational Psychology*; their paper demonstrated the effectiveness of such programmes. Bevé went on later to study for a Doctorate and she was always ready to learn more.

**MARIA FARRER (SPEECH AND LANGUAGE THERAPIST AND DYSLEXIA SPECIALIST, NOW IN NEW ZEALAND) REMEMBERS THE INCEPTION OF THE HORNSBY DISTANCE LEARNING COURSE. SHE BEGINS WITH A QUOTATION THAT IS ECHOED THROUGHOUT THE OTHER TRIBUTES:**

*'Never let anyone believe, for a single moment, that they can't do it'*

I remember Bevé saying these words to me and perhaps they sum up, better than anything else, what made Bevé such an extraordinary lady. For a start, Bevé, herself, never believed that she couldn't do anything that she set her mind to. She embraced everything with huge enthusiasm and was, I think, ruled by her heart rather than her head! If something seemed like a good idea it would be done first and considered later! Working with her was always a whirlwind affair and she might have driven us all demented - except that she had that amazing wit and charm and her heart was always in the right place.

Bevé never allowed me the luxury of believing that I couldn't do it! After qualifying as a speech and language therapist and working with dyslexic children, I decided I should develop my knowledge of dyslexia on a more formal basis and enrolled on the Hornsby Diploma. On arrival at the Hornsby Centre the first morning, Bevé was unexpectedly short of a tutor on the course. She grabbed me as I arrived, announced that I was far too well qualified to be doing the course and would I mind being a tutor instead. I was to lecture on child speech and language development and the development of reading and spelling. 'You'll be fine, dear,' she said with utmost confidence as she ushered me from the back of the class to the overhead projector. And that was it really – my first experience of the extraordinary driving force that was Bevé.

A few years later, I tentatively suggested writing a distance learning course. I should have known better! 'Marvellous idea,' said Bevé, giving me a huge hug. She was, of course, ten steps ahead of me and the next thing I knew it was advertised as starting six months later. Small baby under my desk, I fought to put together the course in time to meet the deadlines. 'Don't worry dear,' said Bevé, 'it'll be ready in time.' It was! There was no option!

It wasn't all a bed of roses. We would have the occasional screaming row, terrify everyone, then sit down with a couple of large glasses of whisky and giggle like naughty schoolgirls! Bevé never lost touch with the child in her. She was wonderful with children. She had that rare gift of being able to build an immediate rapport with a child, however difficult. She captivated their attention and imagination. She never let them believe they couldn't do it and she always got extraordinary results.



A few years ago I moved to New Zealand and was invited to a meeting of dyslexia tutors. *Alpha to Omega* was in pride of place – for Bevé is a worldwide phenomenon!

'Have you come across Dr Hornsby?' I was asked.

'Yes,' I replied, 'I know her very well; I used to work for her.'

'My goodness, that is amazing, you actually knew her?'

And yes, it was amazing.

#### [JULIE POOL \(LEARNING SPECIALIST\) RECALLS TRAINING AT THE HORNSBY CENTRE:](#)

In late 1986 I decided to train as a dyslexia therapist at the Hornsby Centre. I phoned, received an application form and was duly accepted. I was bemused, so I phoned the centre and asked if 'they' wanted to interview me. The response was 'No' so I replied that I would then like to interview 'them'. A week or so later, I drove from Northwest London to Wandsworth Common Westside where I was introduced to 'Dr. Hornsby'. Bevé tried to find my application without much success, pulling out lots of files with cheques falling out of them. I had the temerity to suggest that maybe she needed a filing system – she immediately asked if I would like to set it up. 'No, thanks!' I replied, 'I want to know what this course is about.' We sat and talked for ages and the decision was mutual, I should do the course and allowances would be made for my learning difficulties.

I loved it – the kids on the program and the training, though I was not very good at the tests. At about this time, Bevé decided that she needed a workbook to complement *Alpha* – and that we were the group to write it for her. This we indeed did, publishing it as *The Fun Pack*. Subsequently to be 're-packaged' as *Alpha to Omega Activity Pack One* (and quickly followed by Stages Two and Three of the Activity Packs).

My career in learning difficulties has taken me far beyond dyslexia, but I shall never forget the beginnings with Bevé. She was my mentor and I could not have succeeded without her.

#### [DOROTA ZDZIENSKI \(WHO WORKED WITH BEVÉ AT HIDC\) WRITES ABOUT BEVÉ'S INFLUENCE:](#)

The rôle played by Bevé Hornsby in raising dyslexia awareness internationally, and bringing help and hope to those who are affected by it, is impossible to describe adequately in words. Her passing leaves the position of dyslexia's ultimate ambassador sadly vacant.

My time at the Hornsby Centre was one of tremendous growth. RSA teacher-training courses were re-introduced and AMBDA diplomas, previously exclusive to the Dyslexia Institute, were also added to the existing range of Hornsby diploma courses. Bevé had the vision and generosity to embrace the BDA courses even though they were based on methods that were different from her own. She was equally quick to recognise the value of new methods such as Neuro Linguistic Programming and Instrumental Enrichment.

During the seven years I worked with Bevé, I was frequently struck by the incredible loyalty she was able to command. Once any new idea was born, there were no problems; she was only interested in solutions. Whether it was a new teacher-training course, a new publication, or simply a change of

working practice, for her, the transition from drawing board to reality seemed only a minor detail. She was able to draw commitment and effort, above and beyond what might ever be expected, from everyone who knew her, as witnessed by the huge international membership of the Friends of Hornsby House. Bevé continued to inspire new initiatives until the end of her life and many of these, such as the development of computer programs that complement *Alpha to Omega*, will surely take it forward into the coming decades.

Bevé at 80



#### [HISTORY IN THE MAKING](#)

*Maggie Snowling writes:*

About six years ago, shortly after the University of York validated the Dyslexia Institute's Postgraduate Diploma, Bevé (who was never known to miss a trick), phoned to ask if the University would validate the Hornsby Distance Learning Course. At that time, the University was, shall we say, cautious about 'distance learning' as a concept and so the time was not right to take her proposal forward. However, Bevé made clear that it was her strong belief that dyslexia organisations needed to join forces if they were to have a much-needed impact nationally on teacher training, educational policy and practice. There may or may not have been a glint in Bevé's eye at this point in time, but there certainly was a germ of the idea, shortly to come to fruition, that the Hornsby International Dyslexia Centre merge with the Dyslexia Institute. Of course for many years, the two organisations have been symbiotic and there is much evidence of reciprocal influence: for my part, Bevé trained me to assess and teach people with dyslexia, and then I went on to be a consulting psychologist with the DI for many years; Dorota





Zdzienski was for many years a teacher with the DI before moving her talents to the Hornsby Centre; Nata Goulandris was trained in dyslexia 'therapy' by Bevé and later she was appointed by York to be the first external examiner to the DI's postgraduate diploma!

Here three people from the Dyslexia Institute write of events that presaged the merger of the two organisations:

***Barbara Foster, Principal Teacher (Emeritus),  
Dyslexia Institute remembers the seeds of partnership:***

'Is there such a thing as dyslexia?' was the question most frequently asked by teachers in the early days. Later when the question changed to 'What can I do to help?' things had started to move forward.

After the opening of the Hornsby Centre, close links were made between it and the Dyslexia Institute. Whose idea it was is unknown to me – but the suggestion was that we should combine on a training course, giving the teachers the best of both worlds! So it was, on one Monday morning that Bevé and I found ourselves in front of twenty teachers at Coram's Fields (the site of the original ICAA Word Blind Centre). It was to be the first of 30 sessions. Given her background as a speech therapist, Bevé was used to working in a one-to-one situation, whereas Kathleen Hickey (the founder of DILP), being a teacher used to a class, taught three or four pupils simultaneously, each with a personal programme. For the teachers in our training, it meant that mornings were spent on the D.I. Learning Programme. In the afternoons, with the next group of pupils, *Alpha to Omega* was the programme they learned to deliver. Of course, we did assure everyone that we were using the same alphabet!

***Peter Thompson (Chairman of DI) traces the roots of the collaboration:***

A few television industry colleagues and I started the Vision Charity in 1975; our charter was written specifically to help visually impaired, blind and dyslexic children. Dyslexia was added because one of my fellow Founders had two dyslexic children and sadly, could find little or no means of helping them – that is until he found a 'fantastic' teacher based at Bart's Hospital. Her name was: Dr. Bevé Hornsby!

So in late 1975 I went to meet Bevé for the first time, in her single room at St Bart's. Bear in mind that I was going to offer her some help for nothing! It quickly emerged that videotaping a dyslexic child doing a formal exercise, then playing it back for immediate analysis, would have immense benefit to the child and the parent. Bevé also wanted to video 'case studies' for use in training and lectures. So we began to provide all the equipment and training to make this possible. From that first meeting grew a very close and lasting friendship.

At that time I knew of no other teaching and training organisation for dyslexic children anywhere, so we continued to help Bevé on a regular basis. I recall, in one of my many meetings with Bevé, that I suggested we set about making a series of video recordings, to create a database, long before computers and modern technology. Bevé, (of course) thought that was great idea – but how would she ever find the time to deliver all the material – live to camera!

Vision Charity – with myself in tow, followed Bevé from one

venue to another, as her Hornsby Organisation grew and diversified. Commercially, Bevé was never one to be put off by mere talk of 'affording it'! Balance sheets were for others! So it was that we saw the creation of her schools, teaching materials, ambitious overseas activities, books authored and published. No-one, it seems, could say 'No' to her. Bevé was a human dynamo but at the same time, a warm and genuine person with one objective, that of helping children to overcome the problems of dyslexia.

The well-deserved award to Bevé of an MBE – for her services to dyslexia and children, meant a great deal to her. It was official recognition – at last, that dyslexia is real! Her celebration party, held in the Great Hall at St Bart's Hospital, attended by several hundred friends, was spectacular and Bevé, already in her late 70s announced in her speech that she was busier than ever, with no plans to retire!

When I became involved with the Dyslexia Institute in the early 1990s Bevé was most disappointed that I had not chosen to become a member of her Board of Trustees. It was at that time that I suggested that perhaps, one day, we might see the two organisations coming together! 'That would be a nice dream,' she said!

***Shirley Cramer (Chief Executive of DI) completes the story (to date):***

The first time I heard the name Bevé Hornsby was in 1999 and as you might expect, the name was being liberally bandied about in Brussels. It seemed that everyone I spoke to there on my quest to find out more about 'Dyslexia in Europe' for the Oak Foundation, had been trained by the Hornsby International Dyslexia Centre.

But my first real encounter with Bevé was at a conference in early 2001, not too long after I had become CEO of the Dyslexia Institute. I hesitantly introduced myself and without missing a beat she asked for my views on the speaker and my dyslexia credentials. We had a brief conversation before she was overwhelmed by the line of people hoping for an audience with her. So for me, she was the 'grande dame' of dyslexia, glamorous, charming and very knowledgeable. I assumed that Bevé was in her late 60s or early 70s and recall thinking how wonderful it would be to look as good as her when I was her age. She was, of course at the time a youthful 86 years old!

In 2002, we created the Dyslexia Awards Dinner to celebrate our 30<sup>th</sup> Anniversary and the first recipient of the 'Services to Dyslexia Award' was the DI's founder, Wendy Fisher. When we decided to make our Awards Dinner an annual event, Bevé Hornsby was the natural choice for our 2003 award. Dressed to kill and brimming with energy she thoroughly enjoyed her evening at the Dorchester and was once again the belle of the ball.

Bevé and the DI's Chairman, Peter Thompson had known each other for over 25 years and had discussed the possibility that the DI and the HIDC should be joined together. Both felt that the organisations would be stronger together than apart and that as a merged entity there could be a greater offering of specialist training for many more individuals. Consequently the DI and the HIDC began to discuss the potential for joining together more than two years ago.





The merger will be completed during 2005 and I am sorry that Bevé did not live to see everything finished. We will ensure that the Hornsby name lives on in future courses both in spirit and in practice. Bevé Hornsby is a name to be reckoned with ... she really made a difference.

### CONCLUDING REMARKS

*With much material already on the cutting room floor, the many tributes to Bevé have greatly exceeded the word limit for this article! The final words are therefore left to Bevé's great friend Beryl Wattles (Lady News), Patron of the Cambridge Dyslexia Association.*

Bevé and I go back such a long way that it is hard to remember when I first actually met her. As a desperate mother of a dyslexic boy aged 6 – now a happy architect aged 43 – our first encounter was through *Alpha to Omega* - First Edition. It was not long before I was going up to the Dyslexia Clinic at Bart's Hospital as a volunteer, where I joined the happy and enthusiastic band of workers, some professional, some amateurs like me. I can still remember the advent of Maggie Snowling, and walking over the courtyard with her and Bevé and Frula to lunch at the hospital canteen – we were all on diets in those days – hard boiled eggs! And I remember Bevé in her wheelchair after a difficult foot operation, but still running the Clinic and rushing up to Bangor at the same time to finish her MED.

In due course, and suitably inspired, I returned to Cambridge and went on to continue my professional education. But we never lost touch, and I remember Bevé at our first National (or even International) all day conference on Dyslexia at Churchill College, and running seminars at my College, Lucy Cavendish. I can also remember Bevé driving me back from a conference at Bangor in her little red Morgan, with its leather strap round the bonnet, wheels hardly touching the road, and Bevé plunging with delight into the terrifying maelstrom of traffic around Hyde Park Corner.

While Bevé went on with her publications and her Hornsby Centre in London, I stayed in Cambridge doing a DES funded research project on the Word Blind Centre files and then setting up the first Dyslexia Unit in Cambridge, at King's College Choir School, which I happily ran until retirement.

Bevé never retired of course, but we did go on a holiday cruise when I had, going around the Seychelles in a smallish, tub-like boat sailing out of Mombassa. It had a rather fat Greek captain and an all-Greek crew, and I never understood how they managed to concentrate enough to steer the boat. We even flew back first class on the plane with our third class tickets.

Going back so far, one can easily get the chronology a bit wrong, but there was the enduring sense of Bevé's beauty, her charm, her iron will in such a very elegant velvet glove, the firmness of her loyalty to her friends and students and her total integrity in all the work she did. One cannot imagine a dyslexia movement in England without her.

'Dulling', she would say, looking at you with her large blue eyes, 'that is absolutely marvellous', however well or badly one had done something. I believe that she is now in Heaven, sitting at the right hand (or the left hand, as the case may be) of God and working on her definitive book, 'Dog IS dyslexic!'

### ALPHA TO OMEGA: THEORETICAL FOUNDATIONS

Following on from the early scientific research of Isabelle and Al Liberman with Don Shankweiler at Haskins Labs in the 1970s, it has now become widely recognized that oral language is the foundation of written language skills – this principle underlies the approach advocated by Bevé and her group, exemplified by *Alpha to Omega*. The approach also embodies the ideas of Grace Fernald from the 1920s (who emphasized the role of the kinaesthetic modality in learning to link the sounds of words with their spelling patterns) and the highly structured approach to the teaching of orthography of Gillingham and Stillman who worked in Orton's clinic in the 1950s. Even further back, these approaches can undoubtedly be traced to the work of Montessori in 1915 who believed that children needed to write before they could read.

*Alpha to Omega* is a superb example of a highly structured, cumulative, multi-sensory approach to the teaching of reading, spelling and writing skills, that follows phonetic-linguistic principles. As Bevé herself wrote, 'the great advantage of the method is that it can form the backbone of a treatment programme whilst allowing the teacher a free rein to introduce other games and activities which may be particularly helpful to the person with whom they are working' (Hornsby, 1985, p133). Early incarnations of the programme included training in auditory discrimination and blending and in contemporary practice, most practitioners would include training in oral phonological awareness. Book reading has also always been part of the practice, ensuring that links made between orthography and phonology are reinforced but not over-emphasized, and that the child has access to language beyond single words. In a similar vein, children are asked to write words not only in isolation but also in sentences to dictation, and the sentences are initially simple in structure, only later including more complex grammatical forms, such as negatives, questions and passive voice. Finally, from the perspective of the psychology of learning, the programme embodies best practice including the idea of 'distributed practice' – pupils are encouraged to do a little practice each day, and 'errorless learning' – never expect the pupil to know anything that has not already been taught.

All of these features of the programme help to account for its success. But the role of talented teachers in delivering the programme must not be underestimated. Indeed, systematic research on the teaching of literacy shows that differences among teachers have more powerful effects on children's learning than the programmes they teach. Bevé knew this in her intuitive way. It was her aspiration that one day the philosophy underlying *Alpha to Omega* would find its way into the initial training of *all* teachers – and specifically, she thought that, by joining up the expertise of the HIDC with the DI, together they would play a major role in the future development of teacher education, to the benefit of children and adults with dyslexia.

*Acknowledgements: Maggie Snowling compiled this tribute with the assistance of friends and colleagues who all responded quickly to the request. Thanks are due to them and also to Philomena Ott and Michael Hornsby for their assistance, and to Bevé's family for permission to reproduce photographs.*



# The Incidence of Hidden Disabilities in the Prison Population: Yorkshire and Humberside Research

JOHN RACK

## EXECUTIVE SUMMARY

The question of how many individuals in the prison system have a hidden disability has been much debated over recent years and a variety of studies have yielded different answers to this vexing issue. So why is an answer to this question so important? For individuals it is vital that they understand why they have specific difficulties and that they have the opportunity for a 'second chance' in learning and employment. For prison education services, understanding the scale of the problem will allow planning for appropriate provision. For the prison service, a robust progression from education to employment has a good chance of reducing re-offending. For the public purse this would represent a significant saving. Establishing the incidence of hidden disabilities in the prison population has implications not only for individuals but for society too.

### *Hidden Disabilities and the Prison Population*

The term 'hidden disabilities' includes dyslexia and related specific learning difficulties such as dyspraxia and dyscalculia. It also includes disabilities that have more of an emotional or behavioural component such as attention deficit disorder (ADD) and the milder end of the autism spectrum. The effects of these are different, but similar approaches in terms of assessment and support are often needed. The key similarity is that the individual experiences barriers to learning and work as a result of specific difficulties which are not immediately visible. Often the individuals themselves are unaware that they have such difficulties.

There is no evidence to suggest that dyslexia or a related specific learning disability should predispose an individual to commit a crime, but it is well documented that there is a higher representation of such hidden disabilities within the prison and probation populations. Previous studies have shown a considerable amount of variation in the incidence of dyslexia within prison populations from 50% (Reid and Kirk, 2002) to 4% (Rice, 2002). However, in order for us to gain a better understanding of the reasons why many offenders have poor literacy and numeracy skills more conclusive information is required. This is important if we are to provide effective training and education programmes that have a greater chance of success.

### *Summary of Results*

This research was funded by the Learning and Skills Council (LSC), and was undertaken with support from the Offenders Learning and Skills Unit (OLSU) and from staff from the eight

prisons involved. The research took place from December 2003 to July 2004.

A sample of 357 offenders was drawn at random from eight prisons across Yorkshire and Humberside. The offenders were from all categories of prison, including young offender, women's and high security establishments. Unlike most previous studies the sample was therefore representative of the whole prison population.

In all, 159 offenders were identified as showing signs of a hidden disability through an interview process; 93 offenders in total were then given an in-depth assessment.

The results suggest that 20% of the prison population have some form of hidden disability which will affect and undermine their performance in both education and work settings. A further 32% of the sample who were given an in-depth assessment had literacy difficulties but did not show positive evidence of the characteristics of dyslexia, dyspraxia or other hidden disabilities. It seems more plausible that their literacy difficulties relate to social and experiential factors rather than a hidden disability.

In 'round figures' this study suggests that just over half of the total prison population (52%) have literacy difficulties which will limit learning and work opportunities, a figure consistent with previous studies.

### *Implications*

The success of education and work preparation programmes in reducing re-offending rates is known to be variable. However, recent reviews indicate that programmes are more effective if they are delivered in a way that is sensitive to the specific needs of the individual or particular groups. This is consistent with the evidence from scientific research and practical experience, which shows that dyslexic individuals can learn if they are given access to appropriate, individualised, approaches, but that they often do not make progress with more generic support. This research suggests that 20% of the prison population may require this kind of approach. These individuals have hidden disabilities which are likely to result in barriers to full participation in learning, work and social activities, unless appropriate support is provided.

Ultimately, the benefit of this study should be in reducing re-offending rates by giving prisoners access to services and information that will enable them to improve their key skills, gain valuable qualifications and increase their chances of gaining employment.



## THE INCIDENCE OF HIDDEN DISABILITIES IN THE PRISON POPULATION: YORKSHIRE AND HUMBERSIDE RESEARCH PROJECT

### *Background*

The links between special educational needs in school, social exclusion and the risk of challenging and offending behaviour are well documented. The causal links in these associations are clearly complex and less well understood, but there can be no doubt that those leaving school without adequate literacy or numeracy skills are at a serious disadvantage in the labour market. It is also known that those leaving prison often face barriers to gaining employment because of a lack of foundation literacy and numeracy skills rather than their record of offending. A key question, therefore, is whether we can better understand the reasons why many offenders have poor literacy and numeracy skills in order to provide training and education programmes that have a greater chance of success, ultimately helping to break the cycle of re-offending (recidivism).

### *Prison*

According to the Social Exclusion Unit's report on Reducing Offending by Ex-Offenders (2002) 80% of individuals leaving prison lack the skills for 96% of all jobs:

- Half of all prisoners are at or below Level 1 (the level expected of an 11-year-old) in reading
- Two-thirds are below Level 1 in numeracy
- Four-fifths are below Level 1 in writing
- 52% of male and 71% of female adult prisoners have no qualifications
- 30% of prisoners were regular truants during their school years
- 49% of male prisoners were excluded from school
- 58% of those released from prison are reconvicted within 2 years
- 4 out of 5 prisoners have served a previous sentence

During 2004 there were 74,770 people in prison in England and Wales serving either a custodial sentence or on remand. This has risen 50% over the last decade (Department for Education and Skill (2004), *Offenders' Learning Journey*). According to the Prison Service Annual Report 2003-04 the cost of keeping an individual in prison during 2004 was £27,320. Therefore, there is both a social and economic argument for preventing re-offending and providing the appropriate skills for employment would seem to be a positive solution for many of those who have been involved in the criminal justice system.

However, there is relatively little scientific evidence on the effectiveness of literacy programmes in prison, although there is some evidence from small-scale projects, for example those at HMP Pentonville and Nottinghamshire Probation Service. A Canadian study in 1992 estimated that participation in basic skills classes reduced offending rates by 12% and an unpublished Home Office report (Clark, 2001) found that those who did not participate in education or training while in prison were three times more likely to re-offend than those who did take part in such programmes.

There is now a need for a large-scale study to determine the most effective forms of intervention and to quantify the impact on literacy skills and rates of re-offending. The design of such a study would need to take into account the possible impact of hidden disabilities and, thus, as a first step, clear data about the characteristics of the prison population is required.

### *The 'Dyslexia Hypothesis'*

The present research is designed to establish the incidence of dyslexia and related hidden disabilities in the prison population. This research is needed because the findings from previous studies appear contradictory. There are some studies that report an incidence of dyslexia well above what would be expected in the population at large, but other studies report no such difference. Before reviewing these studies and describing the present research, it is necessary to clarify the 'dyslexia hypotheses a little further and to outline the framework that is used for the assessment of hidden disabilities, including dyslexia.

One possibility is that there are common risk factors which increase the chances of dyslexia and increase the probability of offending. Epidemiological and longitudinal findings provide some support for this argument in suggesting that a common factor of socially disadvantaged backgrounds may predispose both antisocial behaviour and reading difficulties (Williams and McGee, 1994; Fergusson and Lynskey, 1997; Maughan et al. 1996). A further possibility is that the risk of offending is increased for those with dyslexia only when other risk factors are present; some of these risk factors might be to do with additional cognitive difficulties (e.g. attention), some to do with social factors and some to do with the impact of education. For example, if proper support is not provided at school for someone who is dyslexic, then there is a greater risk of failure and perhaps antisocial behaviour arising out of frustration. This, in turn, could lead to social exclusion and an increased risk of offending. The working hypothesis for this research is that the higher incidence of dyslexia in prisons, if any, is likely to reflect a combination of several risk factors, rather than any particular 'personality' factors intrinsic to the dyslexic person.

Whether or not we can fully understand the factors that may explain the association between dyslexia and offending behaviour, there is an unquestionable need to understand the nature of the literacy difficulties experienced by those in

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prison in order to deliver the most effective support. Although the evidence on intervention effectiveness in adult literacy is limited (Rice & Brooks 2004), there is good practical evidence that learners with dyslexia do not make progress unless they are given the kind of teaching that has been developed with their specific needs in mind. To plan for effective support in prison education departments, it is therefore necessary to have reliable information about the numbers likely to require this kind of teaching and support.

## *Assessment Framework*

Developmental dyslexia is now well understood. We know something of its neurological basis, something of the genetics; we know a lot about the characteristics at the cognitive level, in memory, language and information processing; we know a lot about its effects on reading, spelling and writing skills; we know a lot about effective support for dyslexic people to help improve key literacy skills and to develop compensatory strategies. However, despite this depth of knowledge, dyslexia can still provoke controversy and it is certainly true that we do not have clear answers to questions about its incidence in different populations and about the comparative effectiveness of different methods of intervention. One reason for these discrepancies is that there are differences in the criteria and 'cut-offs' used to define dyslexia. Another reason is that we are developing an understanding of different kinds of hidden disability that are different from, but which may have some features in common with, dyslexia.

The starting position taken in this research is that poor literacy skills could arise for a number of reasons, including, but not limited to, dyslexia. Difficulty in learning to read may be one of the first signs of dyslexia but it could also be a sign of something else such as, for example, a more general difficulty with language development or difficulties with attention and concentration. Conversely, a person who is dyslexic may not struggle very much when learning to read but their dyslexia may show itself later in spelling, writing or organisational skills. For both these reasons, a definition that equates dyslexia with poor reading is inadequate.

Assessment of dyslexia needs, therefore, to look beneath the surface to find what is at the root of the reading or spelling difficulty. This is the process of diagnosis – finding what is causing the problems. The diagnostic process is about understanding and not labelling; and a diagnosis should always be made tentatively and modified if new information suggests a different interpretation.

The outcome of a full diagnostic assessment is therefore an interpretation: diagnostic tests can help explain why certain skills have been difficult to learn, why certain mistakes tend to occur and why certain activities or ways of working may be preferred. This interpretation is, of course, highly individual, but there are consistencies in the patterns that are seen. The most consistent pattern involves difficulties in processing word-sounds and verbal sequences, which is the classic dyslexic pattern. Another consistent pattern is one involving co-ordination and sequencing difficulties which impact more on handwriting and spelling. Similarly, difficulties with attention and concentration may create barriers to learning and understanding. There is often overlap between these

patterns, but sometimes they may be seen clearly as distinct conditions such as dyslexia, developmental coordination disorder (dyspraxia) and attention deficit disorder (ADD) or attention deficit hyperactivity disorder (ADHD).

## *A Functional Approach*

The emphasis of our screening and assessment procedure was on identifying barriers to learning. We therefore framed questions about the 'symptoms' (or diagnostic indicators) in functional terms covering such things as 'interpersonal communication' or 'organisational skills'. We felt that these would allow a report or feedback to be given in terms that were a) understandable and meaningful to the client and b) led naturally to guidance for areas to target through support.

## *Previous Studies*

A number of studies have used an approach to identification based on interview and questionnaire data. Reid and Kirk (2002) used a computerised system called Quickscan which showed that 50% (25 out of 50) of a sample of young offenders had at least borderline indicators of dyslexia. Davies and Byatt (1998) in the STOP project found that 31% (160 of 517) of a sample of people on probation had positive indicators of dyslexia. Klein, (1998), also using a questionnaire approach in the Dyspel Project found that 38% of offenders had indicators of dyslexia. An approach based on screening and interviews can provide useful insights and enable the development of learning programmes but it is not conclusive in terms of identifying dyslexia or other specific learning difficulties.

Rice (2002) used a formal screening procedure, the Dyslexia Adult Screening Test or DAST (Nicholson and Fawcett), as well as structured interviews and measures of literacy, verbal and non-verbal ability. A sample of 323 prisoners were seen, 38% of whom were found to be below functional literacy levels but only 4% were identified as dyslexic. Rice argued that it was not possible to identify dyslexia when there were other plausible experiential factors that could explain the low attainments.

A Dyslexia Institute project with young offenders at Feltham (Turner and Allchorn, 2000) used a group screening procedure which involved testing of literacy skills and underlying cognitive abilities. 97 young offenders were given group tests of general ability, word reading, spelling, higher-level reasoning abilities and information processing skills. On the basis of these results a Dyslexia Index was calculated which reflected the unevenness of their test profile. Dyslexia was indicated by a combination of 1) a discrepancy between predicted and actual attainment levels and 2) specific difficulties on diagnostic tests. It was calculated that 17.5% of the sample showed evidence of dyslexia.

Snowling, Adams, Bowyer-Crane and Tobin (2000) assessed a group of 91 young offenders using measures of literacy attainment, verbal ability, non-verbal ability and phonological skills. The majority of the sample had weak literacy skills with mean standard scores of 85 for reading and 75 for spelling on the Wechsler Objective Reading Dimensions. Measures of general intellectual ability were the block design and the vocabulary subtests of the Wechsler Intelligence Scales



for Children. The sample as a whole were worse on vocabulary (standard score of 75) compared to block design (standard score of 89). Dyslexia was assessed by identifying those whose attainments fell significantly below expectations, calculated separately for verbal and non-verbal ability. 57% of the sample had attainments below the levels predicted from their non-verbal ability and 42% had attainments below predictions based on verbal ability.

Snowling *et al* also estimated the prevalence of dyslexia using the criteria of specific phonological deficits (Rack *et al*, 1993). 39% of the sample had phonological processing skills that were lower than would be expected given their general reading skills. Finally, if an exclusionary criterion of 'average verbal ability' was applied, only 8% of the sample were classified as dyslexic. Snowling *et al* argued that the majority of those with literacy difficulties had rather more widespread deficiencies in language processing and verbal skills.

Samuelson, Gustavsson, Herkner and Lundberg (2000) conducted a study using similar methodology looking at a sample of 48 inmates from an adult medium-security level prison in Sweden. Participants were given standardised measures of text and sentence reading, spelling, phonological decoding and orthographic skills. Performance was compared to norms for 12 year-old students because their number of years of schooling equated to that which was estimated for the inmates. The prisoners, on average, were reading and decoding words at a similar level to the 12 year-old comparison group and their spelling skills were significantly better. In contrast to the Snowling *et al* study, the majority, 81%, of the sample did not have phonological decoding skills that were significantly depressed in relation to their reading levels. This difference in findings may partly reflect differences in the transparency of the two orthographies. Of the 18% who did have severe phonological deficits, almost half were non-native speakers of Swedish, leaving the remainder as potentially dyslexic. Samuelson *et al* conclude that the incidence rate of 9% amongst the native speakers was comparable to that which is found in the general population.

In a second study, Samuelson, Herkner and Lundberg (2003), assessed 82 prisoners on a more extended battery including measures of non-verbal (Raven's Matrices) and verbal ability (vocabulary). Standardised measures of comprehension, single-word reading and spelling were given along with two measures of phonological decoding and phonological awareness (a spoonerism task). Using similar prediction procedures to those reported by Snowling *et al*, the incidence of dyslexia was found to be around 10%.

The studies conducted to date give estimates of dyslexia from 4% (Rice, 2002) to 50% (Reid and Kirk, 2002). These differences may reflect a number of factors including: a) differences in samples – some studies concentrated on young offenders and some on older adults; b) differences in assessment methodology – some studies used screening procedures, others used cognitive testing; c) differences in the attention given to alternative explanations of poor literacy skills. These factors will be considered in the discussion section of this report, in the light of the findings from the present study.

## YORKSHIRE AND HUMBERSIDE STUDY

### *Research Brief*

The Learning and Skills Council (National Office) asked the Dyslexia Institute (DI) to conduct research into the incidence of dyslexia and related hidden disabilities in the prison population. The Offender Learning and Skills Unit (OLSU) have supported this research which focussed on the Yorkshire and Humberside Region as it was possible to gain access to a good cross-section of prisons that included young offender units, women's prisons and high-security establishments, something that most previous studies have not done. The research reflected a partnership between the DI, the Learning and Skills Council (LSC), the OLSU and the University of York.

### *Sample*

Our target was to interview a sample of prisoners to be representative of the prison population as a whole. We were able to interview 357 prisoners across 8 different categories of prison, which are listed below. We gratefully acknowledge the support and cooperation of the governors and prison officers in these establishments.

**HMP FULL SUTTON: High Security**  
Full Sutton, YORK, North Yorkshire

**HMP EVERTHORPE: Closed Training Males Category C**  
BROUGH, East Yorkshire

**HMP/YOI NEW HALL: Female – Closed Category C and Young Offenders Institution (YOI)**  
Flockton, WAKEFIELD, West Yorkshire

**HMYOI NORTHALLERTON: Closed YOI (Males under 21)**  
NORTHALLERTON, North Yorkshire  
(This prison withdrew from the study after the first phase)

**HMP HULL: Local prison**  
Hull, East Yorkshire

**HMP & YOI MOORLAND: Category C adult training prison and YOI**  
Doncaster, South Yorkshire

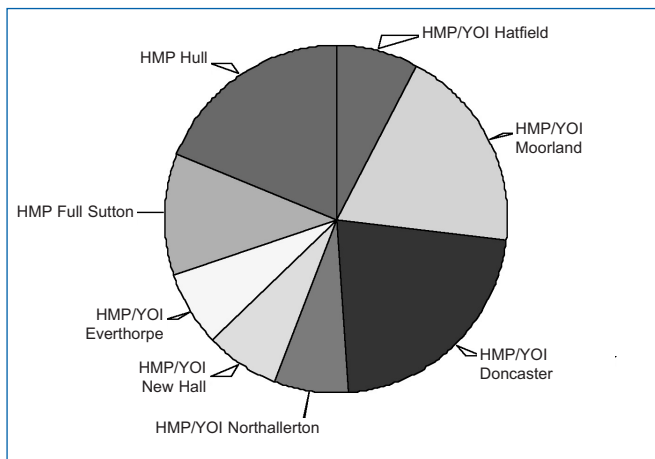
**HMP HATFIELD: Category D open prison**  
Doncaster, West Yorkshire

**HMP & YOI DONCASTER: Category A local adult male prison and YOI**  
Doncaster, South Yorkshire

### *Sampling Procedure*

To identify the sample for the study, we made use of the lists generated by the Mandatory Drug Testing (MDT) system. This system generates a random sample of 10% of those on the prison roll who are required to undergo checks on drug use. Based on the operational capacities of the prisons involved a pool of 470 participants was identified and 357 of these were interviewed. The breakdown of the total sample is shown in Figure 1.

Figure 1: Composition of the Interview Sample



Participation in the study was subject to the prisoners' informed consent, with refusal possible following the initial invitation for interview, which was given by prison staff, or following an explanation of the project at the start of the interview. Prisoners were not invited to take part in the study if there were security concerns or they were about to be released or transferred. The logistic challenges of working in a secure environment meant that some of those identified for interview could not be seen in the time available.

**Procedure**

**1. Step one: Screening Interview**

The initial screening took approximately 45 minutes and was conducted by one of the members of the research team. For security and supervision reasons, it was usual to work in groups of 2–4 researchers in a large area such as the visiting area or chapel, where participants could talk in confidence but be supervised by a prison officer.

The interview and screening questionnaire was designed to identify features of hidden disabilities across the spectrum of dyslexia, dyspraxia, attention deficit disorder and Asperger's Syndrome. It was originally constructed as part of a project with Job Centre Plus and therefore the questions are framed within a work context for use with adults. The questionnaire was designed as a structured interview providing the opportunity to give clarification or ask for examples as appropriate. All questions were read aloud by the interviewer.

The questionnaire was divided into sections organised on a functional basis, for example literacy and numeracy, learning and thinking style. Wherever possible, questions from established screening questionnaires were used, supplemented by questions suggested by consultation with practitioners and by reference to definitional criteria and checklists. Thus there were not sets of questions about specific hidden disabilities; rather indicators of hidden disabilities could be collected from the various functional sections. For example, in Section 1, Social and Interpersonal Communication, there were 16 questions, and 11 of these were relevant to characteristics of dyslexia, 10 were relevant to characteristics of dyspraxia, 8 to Asperger's Syndrome and 8 to attention deficit disorder. Section 2, Motor Co-ordination and Visual/Spatial, contained 13 questions that were mainly relevant to dyspraxia (12

questions). The section on Learning and Thinking Styles contained questions related to features of Asperger's Syndrome, with 13 out of 16 questions concerning, for example, tendencies to enjoy routine, having a high attention to detail and having a preference for unusual hobbies or hobbies that require a great deal of detailed attention. Section 5, Literacy and Numeracy, contained the highest number of questions relevant to dyslexia with questions about spelling and reading and understanding text. Also included in this section were questions about difficulties in carrying out numerical tasks and other tasks requiring working memory skills. Other questions were concerned with writing skills, organising information and thoughts and difficulties in putting thoughts into words.

Responses to questions were judged to give positive 'indicators' for particular hidden disabilities and a numerical 'hidden disabilities' score was calculated for each of the 4 main patterns of hidden disability. Participants were selected for the second phase of the study on the basis of the interview and questionnaire results.

**2. Step two: Assessment**

The assessment consisted of the individual administration of a series of tests lasting approximately 1 hour 40 minutes. Tests used were:

- i. *Verbal and Nonverbal Abilities* were assessed using the Wide Range Intelligence Test (WRIT). This test gives an indication of overall verbal ability based on scores from two tests. In an expressive vocabulary test, the task is to explain the meaning of a series of words which increase in difficulty; in the verbal reasoning test the task is to work out the relationship, or rule, between two words and then apply the rule to complete a second pair. The non-verbal ability score is derived from results on a pattern design test, involving recreating a design using patterned tiles, and results on a matrices test, involving working out the rules and relationships amongst visual patterns and shapes. An overall composite IQ was calculated from all 4 subtest scores.
- ii. *Reading and Spelling* were assessed using the Wide Range Achievement Test (3rd Edition) WRAT-3. The reading test is a single-word naming test involving words of increasing difficulty, and the spelling test involves spelling a series of dictated words, each given in isolation and in a sentence context. In both tests, there is a discontinuation rule so that participants are not asked to attempt too many words that are beyond their abilities.
- iii. *Diagnostic tests of memory and information processing* were given to assess short-term memory, visual information processing speed and phonological (word-sound) skills. Digit Span from the Wechsler Adult Intelligence Scales (WAIS) involves repeating digit sequences of increasing length in both forwards and backwards directions. Digit Symbol Coding, also from the WAIS involves copying shapes into numbered boxes, at speed, using a digit-symbol coding key shown at the top of the page. In the Rosner Test of Auditory Analysis





Skills (Rosner, 1979) the task is to first repeat a word (e.g. 'same') and then say the word without one of the sounds (e.g. without the 's'). The Spoonerisms task is a more demanding test of phonological analysis and manipulation skills, involving switching initial phonemes of a name to create a Spoonerism. Finally, participants were given a non-word repetition task (Gathercole and Baddeley), in which they had to listen to and repeat a series of 'made-up' words, again increasing in length and complexity.

**Understanding and Explanation**

Although this was primarily a research study, it was important to provide individual feedback for those assessed. With prisoners' consent, a report of the main findings was sent to the head of resettlement or education department at the prisons concerned. Providing a possible explanation for difficulties in learning and in work can be very empowering. To learn that the reason for underachievement in school might be dyslexia rather than limited general ability or poor motivation can make an enormous difference at an individual level. For many, assessment is a turning point, showing that the individual has the potential to achieve, which opens up opportunities to receive additional support. Whether or not individuals were assessed as having some recognisable pattern of hidden disability, the assessment report provided a description of strengths and weaknesses and that information can be used to help plan for learning and work that best suits the individual's characteristics. This is therefore very important for the individual's progression and future prospects.

**RESULTS**

**Interview Sample**

The numbers of prisoners interviewed, in relation to the target sample is shown in table 1.

Table 1

THE NUMBER OF PRISONERS INTERVIEWED COMPARED TO THE TARGET SAMPLE			
Establishment	10% operational capacity	Not interviewed	Total sample
HMP/YOI Moorland	75	6	69
HMP/YOI Hatfield open	25		27
HMP Everthorpe	40	15	25
HMP/YOI New Hall	35	11	24
HMP/YOI Northallerton	25	0	25
HMP Hull	100	32	68
HMP Full Sutton	60	19	41
HMP/YOI Doncaster	110	32	78
TOTAL	470	115	357

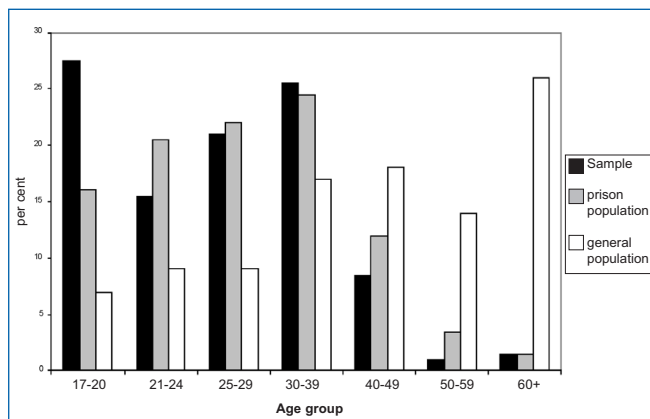
**Gender**

New Hall was the only women's prison in the study and the women from there made up approximately 7% of the total sample. This compares to figures of about 4% from The National Prison Survey (1992) and 5% from more recent government figures (Social Inclusion Unit, 2002).

**Age**

As is typical of the prison population, the distribution of ages is heavily biased towards the 17 to 25 year old age group, as is seen in Figure 2.

Figure 2: The Age Distribution within the Sample compared to the Prison Survey (1992) and the population as a whole



**Socio-economic grouping**

Given the constraints on the interview time, it was not possible to obtain detailed information about family background. However, a broad classification was possible using the General Register Office Classification of Occupations (1966). The breakdown is shown in table 2.

Table 2

GENERAL REGISTER OFFICE CLASSIFICATION OF OCCUPANTS FOR THE OFFENDERS IN THE SAMPLE COMPARED TO THE PRISON SURVEY (1992) AND THE POPULATION AS A WHOLE			
	Sample, %	Population, %	General Population, %
A, B, C1	23	18	45
C2	18	41	37
D, E	70	41	19

**Qualifications**

Consistent with previous surveys, over 50% of the sample had obtained no formal qualifications from school or further education and training. The remainder had a mixture of qualifications as shown in Figure 3.

**Truancy**

Reports of truancy for extended periods were very high for all age groups, although greater numbers of those over 30 reported never having truanted. The findings are shown in table 3.

**Language and Ethnicity**

93% of the sample reported English to be their first language and 95% identified themselves as British or English.



Figure 3: The qualifications of the offenders reported never having truanted.

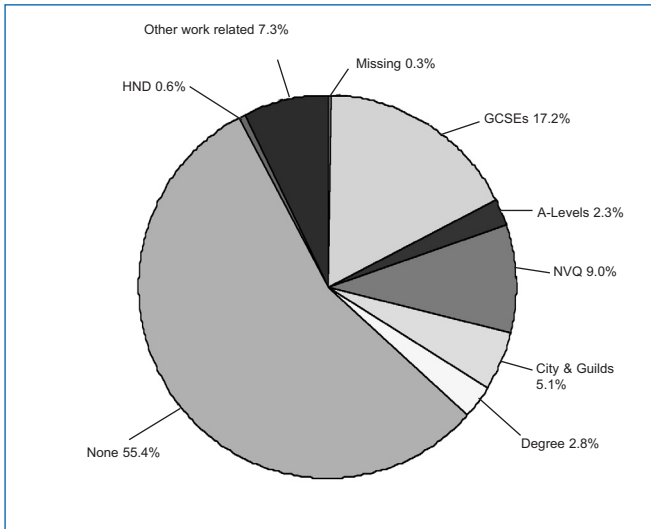


Table 3

THE EXTENT OF TRUANCY WHILE AT SCHOOL				
Age Group	Never %	Lessons %	Days %	A week or longer
17-20	15	21	25	39
21-24	17	19	26	40
25-29	11	25	22	32
30-39	33	23	15	27
40-49	27	18	21	37

**HDQ Screening Results**

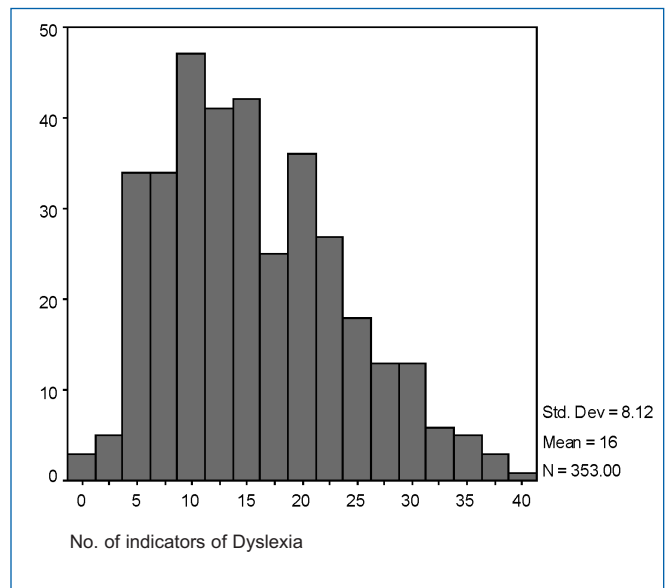
Cases were ranked according to the number of indicators on the subscales of the Hidden Disabilities Questionnaire and allocated to high, low or borderline categories. The primary purpose was to identify those showing signs of a hidden disability for further testing, but a number of participants who were in the low and borderline bands were included for validation purposes.

The distribution of the dyslexia indicator scores on the HDQ is shown in figure 4. The distribution for dyspraxia indicators was very similar.

Prisoners were selected for participation in the second stage of the study if they had 18 or more indicators on either the dyslexia or dyspraxia indicators, or 14 or more for ADD. In addition, a number of prisoners were invited to take part in the second stage whose scores were low, or in a borderline category. This was done for validation purposes and in order to provide data about the cut-off level that might be best used in practice.

In practice, few additional people were included on dyspraxia indicators who were not already included on dyslexia indicators. Thus, of the 137 people identified as having indicators of dyslexia, only 16 did not also meet the criteria on indicators of dyspraxia. Of the 128 people identified as having high indicators of dyspraxia, only 7 did not also meet the criteria on indicators of dyslexia. The overlap between indicators of dyslexia and indicators of ADD was also high.

Figure 4: The distribution of dyslexia indicators



Only 26 out of the 137 who met the criteria on indicators of dyslexia did not also meet the criteria on indicators of ADD. Out of 132 people who met the criteria on indicators of ADD, only 21 did not also meet the criteria on indicators of dyslexia. Further analyses will be needed to look at those questions that discriminate the different groups and to look at the qualitative aspects of the responses which are more relevant to Asperger's Syndrome.

**Assessed Sample**

The numbers identified by the screening procedure and the numbers who were tested are shown in table 4.

Table 4

THE NUMBER OF THOSE SCREENED FALLING INTO HIGH, BORDERLINE AND LOW CATEGORIES ON THE HIDDEN DISABILITY QUESTIONNAIRE, AND NUMBERS ASSESSED		
Indicators of hidden disability	Identified from screening	Numbers assessed (Phase 2)
High	137	62
Borderline	71	15
Low	148	16
Missing	-	-
TOTAL	357	93

**Characteristics of Sample Tested**

The mean standard scores on the reading, spelling and general intellectual ability tests are shown below for the sample of 93 prisoners who completed Phase 2. The mean for the general population is 100 with a standard deviation of 15 in each case.

The distribution of reading against intellectual ability is shown in figure 5. Lines have been drawn on the graph at standard score of 85, which represents 1 standard deviation below the population mean and is the conventionally accepted boundary of the average range. Thus the upper right quadrant contains individuals whose scores on reading fall within the average range. The two lower quadrants contain those whose scores on reading are below average.



Figure 5: Plot of reading ability against general intellectual ability

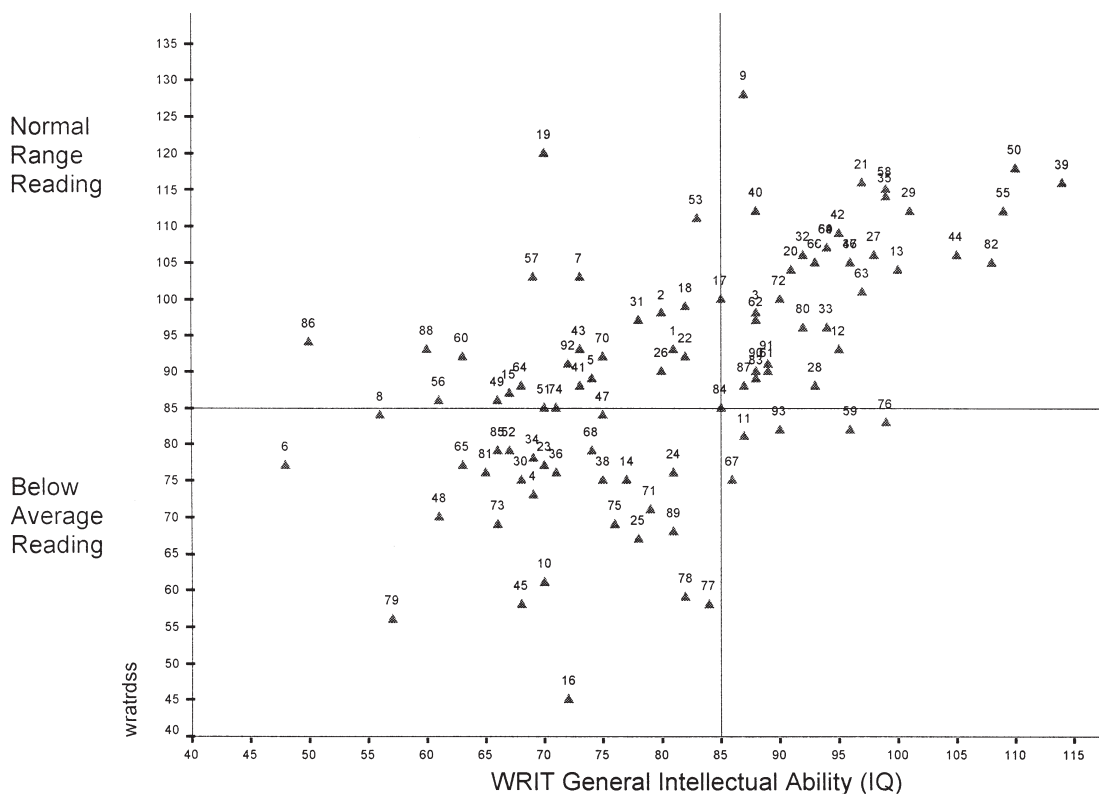


Figure 6: Plot of spelling ability against general intellectual ability

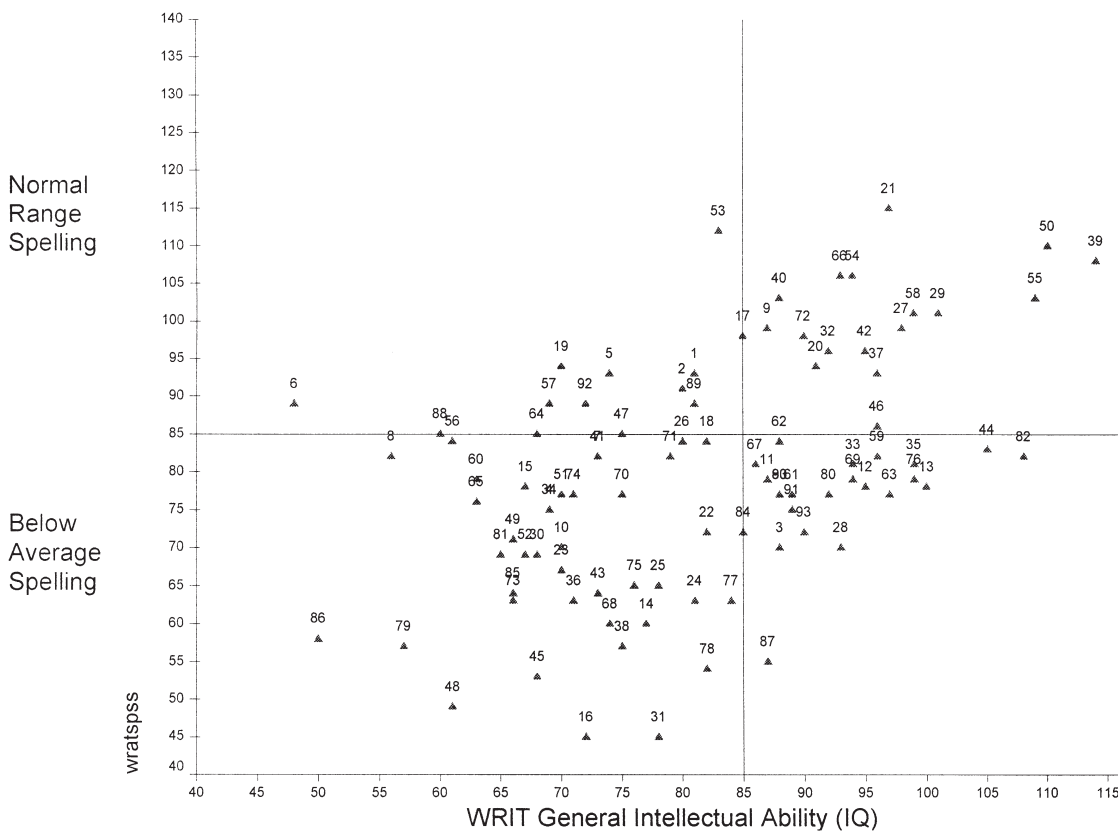






Table 5

THE MEAN STANDARD SCORES OF THE OFFENDERS FOR READING, SPELLING AND INTELLECTUAL ABILITY			
	General Intellectual Ability Standard Score	Reading Standard Score	Spelling Standard Score
Mean	81.3	89.9	79.5
Standard Deviation	14.0	16.3	15.40

As an alternative to taking a straightforward cut-off, the Wide Range Test scores can be used to identify those people whose attainment scores fall significantly below the expected level for their ability. This is shown in table 6 for the 0.01 level of significance.

Table 6

ATTAINMENT SCORES SIGNIFICANTLY BELOW EXPECTED LEVEL FOR ABILITY			
	Reading at Expected Level	Reading Below Expected Level	Total
Spelling at Expected Level	41	2	43
Spelling Below Expected Level	32	18	50
TOTAL	73	20	93

Twenty people (21%) had scores in reading below expectations and the vast majority of these people (18/20) also had scores on spelling below expectations. Only 2 people (2.2%) were below expectations in reading only.

Almost half of the sample (50/93, 53%) were below expectations in spelling and the majority of these people (32/50) were below expectations in spelling but not reading. Thus 34% of the total sample tested were achieving spelling scores significantly below expectations based on their general intellectual ability and a further 19% were below expectations on both reading and spelling.

**Diagnostic Indicators**

As outlined in the introduction, the finding of attainment levels below expectation is not a diagnosis in itself. Rather, it signals the need to explore factors that might explain the so-called 'underachievement'. The mean scores for the assessed sample on the diagnostic tests are shown in table 7 along with the cut-off scores used to determine an impairment.

In the case of digit span and coding, a scaled score of 7 reflects performance in the lower 16% and therefore that is an objective indicator of difficulties. The cut offs on the other tests were based more on clinical judgement and experience of using the tests with other populations. The TAAS, for example, is something on which most 9 year olds would gain perfect scores.

Table 7

THE MEAN SCORES FOR THE ASSESSED SAMPLE USING DIAGNOSTIC TESTS					
	Digit Span Scaled Score	Coding Scaled Score	Nonword Repetition Raw Score Max=40	TAAS Raw Score Max=13	Spoonerisms Raw Score Max=18
Mean	8.9	7.05	37.04	11.13	8.16
Standard Deviation	3.2	2.56	4.45	1.91	7.29
Cut-off score for impairment	≤ 7	≤ 7	≤ 34	≤ 11	≤ 8

To assess the validity of the diagnostic measures as predictors of reading and spelling in this population a series of regression analyses were carried out.

Using Regression Analyses, the diagnostic measures were found to relate to literacy skills, over and above any relationship that might be related to general intellectual ability (IQ). For example, the test of auditory analysis skills accounted for a substantial 26% of the variance in reading and IQ accounted for an additional 18% (its unique contribution). IQ when entered first in the regression equation accounted for 34% but TAAS accounted for an additional 9% over and above - its unique contribution. Thus, these variables together accounted for 16% of shared variance in reading and each made an additional independent contribution.

The outcome was similar for Spoonerisms and digit span with non-word repetition and coding proving less predictive. These results show that the strong relationship between measures of phonological processing skill and reading remains even in a sample where a wider range of causal factors might be thought to be at play.

**Assessment of Hidden Disabilities**

Dyslexia may be positively diagnosed when there is a) evidence of specific difficulties in learning to read and spell and b) a typically dyslexic profile of strengths and weaknesses on diagnostic tasks. We therefore subdivided the poor readers into those showing weaknesses on diagnostic tests and those who did not show weaknesses. Our criterion for showing weaknesses was a score below the cut-offs (indicated in table 7) on 3 or more diagnostic tests. However, when ability scores are very low it is difficult to rule out the possibility that the person has a rather more general problem in understanding the requirements of an unfamiliar task. The sample contained 4 people whose IQ scores were below 60 and it was not felt advisable to try to interpret their results on the diagnostic tasks in terms of specific learning difficulties.

Table 8 shows the number of good and poor readers in the assessed sample of 93 people, sub-divided into those identified as showing high, medium and low indicators on the Hidden Disabilities Questionnaire (HDQ).

Amongst the 62 tested who had high indicators:

- 31 (50%) were relatively good readers (standard score above 85)



Table 8

NUMBERS OF GOOD READERS, POOR READERS AND POOR READERS SHOWING SIGNS OF SPECIFIC LEARNING DIFFICULTIES FOR THE ASSESSED SAMPLE, SUBDIVIDED BY INDICATOR GROUP ON THE HDQ, AND ESTIMATED FREQUENCY OF THOSE WITH HIDDEN DISABILITIES IN THE SAMPLE AS A WHOLE								
HDQ Score	Screened	Tested	< 60	Good Readers	Poor Readers	Poor Readers + SpLD	Frequency	
High Indicators	137	62	2	31 50%	29 47%	17 27%	37	
Medium	71	15	1	11 73%	3 20%	3 20%	14	
Low	148	16	1	14 88%	1 6%	0 0%	0	
Missing	1							
TOTAL	357	93					51	14%

Table 9

NUMBERS OF GOOD SPELLERS, POOR SPELLERS AND POOR SPELLERS SHOWING SIGNS OF SPECIFIC LEARNING DIFFICULTIES FOR THE ASSESSED SAMPLE, SUBDIVIDED BY INDICATOR GROUP ON THE HDQ, AND ESTIMATED FREQUENCY OF THOSE WITH HIDDEN DISABILITIES IN THE SAMPLE AS A WHOLE								
HDQ Score	Screened	Tested	< 60	Good Spellers	Poor Spellers	Poor Spellers + SpLD	Frequency	
High Indicators	137	62	2	11 18%	49 79%	24 39%	53	
Medium	71	15	1	5 33%	9 60%	5 33%	23	
Low	148	16	1	9 56%	6 38%	0 0%	0	
Missing	1							
TOTAL	357	93					76	21%

- 29 (roughly 50%) were poor readers.
- 17 out of the 29, or 27% of those assessed also met the criterion of showing difficulties on diagnostic tests.

Thus we conclude that 27% of those who showed high indicators on the HDQ were, on testing, found to show a typically dyslexic pattern. Applying this percentage to the numbers in the sample who had high indicators gives an estimated frequency of 37 from the sample as a whole.

Consider next those who had low indicators on the HDQ. Of the 16 of these people who were tested, only 1 was poor at reading and he did not show evidence of difficulties on diagnostic tests. Thus we estimate that amongst the 148 people from the total sample who had low scores on the HDQ, there are no individuals who show a pattern of a hidden disability on testing.

The medium, or borderline, category was included in order to calibrate the HDQ cut-off; it was also the category into which the majority of those who were high on ADD, but not dyslexia indicators, fell. Of the 21 who met the criteria on ADD indicators, but not dyslexia indicators, 16 were in the borderline category (15–17) on dyslexia indicators. Thus it is to be expected that we would find some in this group who had

specific difficulties on diagnostic tests when assessed. Of the 15 assessed, 3 were poor readers and all of these 3 were found to show weaknesses on diagnostic tests. This represents 20% of those with medium/borderline indicators who were assessed. Applying this to the number on the total sample with medium/borderline indicators gives us an estimation of a further 14 people who are dyslexic in the total sample.

In summary, when looking at the poor readers identified without regard to IQ scores, we calculate that 51 show signs of specific difficulties on diagnostic tests and would thus meet the criteria for dyslexia. This constitutes 14% of the total sample.

### Spelling

Table 9 shows the same analysis but looking at poor spellers.

It is interesting that many more of those in the high indicator group are found to be poor at spelling (79%) compared to reading (47%), suggesting that spelling difficulties are a more common feature of hidden disabilities, defined more widely. However, amongst the 49 poor spellers there are more who do not show signs of difficulties on diagnostic tests, suggesting that poor spelling may also result from social and environmental factors.



In summary, when looking at the poor spellers, and applying the percentage calculations for the high-indicator and the medium/borderline indicator groups, we calculate that 76 show signs of specific difficulties on diagnostic tests and would thus meet the criteria for dyslexia. This constitutes 21% of the total sample.

Summary of Study 2

Due to practical difficulties such as the high turnover rate in YOIs and because Northallerton YOI withdrew from the study after the first phase, the sample assessed was smaller than originally planned. Fortunately, the Dyslexia Institute was conducting a project at HMP Brixton at the same time, which focused on the 17-19 year age range. This study has been written up but not published (Henderson, 2004) and so the results are summarised here.

70 participants were assessed using very similar methodology to that used in the Feltham study (Turner and Allchorn, 2000). The mean standard scores are shown in table 10.

Table 10

MEAN STANDARD SCORES ON ABILITY, ATTAINMENT AND DIAGNOSTIC TESTS FROM THE BRIXTON SAMPLE	
Non-verbal ability	75.46
Verbal ability	75.07
Reading attainment	89.58
Spelling attainment	77.78
Diagnostic – Speed of Processing	73.57
Diagnostic – Non Word Reading	92.98

In this sample, if 'low literacy', reading and spelling below the population average, is used as a definition of learning disability, approximately 50% of the sample would be identified as 'dyslexic.' However, if we take those whose literacy difficulties are more specific, i.e. their reading and spelling skills are below that expected for their general ability, the figure then drops to 31%. By including the need for 'positive indicators', on tests of phonological decoding and processing speed, the overall figure drops to 25%. Of these 18 (25%) who showed indicators of dyslexia to a varying degree, 8 participants, or 11%, appeared also to have 'moderate learning difficulties'; they were low on ability but even lower on attainment and diagnostic tests.

The findings from the Brixton study are therefore very similar to that in the Yorkshire and Humberside sample. Positive signs of dyslexia are found in about 20-25% of the sample but if an exclusionary criterion was used only half of those would be described as dyslexic.

DISCUSSION

This report began by acknowledging that the factors that contribute to a cycle of offending and re-offending behaviour are many and complex. Poor educational skills, especially literacy skills, are recognised as one of the critical factors that make it difficult for offenders to break out of this cycle. The goal must be to understand the factors that are behind poor literacy skills and to take preventative action to improve skills

at school. Ultimately, it is this that reduces the chances of social exclusion and offending behaviour in the first instance.

The working hypothesis in this study is that dyslexia and related hidden disabilities, if not identified and not addressed appropriately at school will, perhaps in combination with other factors, increase the risk of social exclusion and offending behaviour. Under this hypothesis it would be expected that the incidence of dyslexia in the prison population would be significantly above the baseline incidence rate. Although up to 10% of the population may show some features of dyslexia, the number showing significant difficulties of the degree found in this study is thought to be between 4 and 5%. The Yorkshire and Humberside study shows an incidence rate in the prison population of 14%, using the criterion of reading difficulties and evidence of specific difficulties on diagnostic tests, and a figure of 21%, using the criteria of spelling difficulties and specific difficulties on diagnostic tests. Thus we conclude that the incidence of dyslexia in the prison population is between three to four times that found in the general population.

The figures from this study are higher than other studies, such as Rice's 4% and Samuelsson et al's 8%, but lower than others, such as Reid and Kirk's 50%. This study, along with others, shows that dyslexia will be over-identified if a screening procedure or checklist is used. Only about a quarter of those reporting characteristics of dyslexia using our HDQ were found, on testing, to be dyslexic. Similarly we found, consistent with previous surveys of literacy levels, that about half the prison population experienced significant difficulties but not all of those showed positive signs of dyslexia. Our estimate is that two-fifths, or 40%, of those with literacy difficulties are dyslexic.

These results are also consistent with the study by Snowling et al. (2000), although at first sight there would appear to be differences. Snowling et al explored different methods and cut-offs producing estimates ranging from 8%, if a criterion of average verbal IQ was used, to 57%, using the criterion of literacy attainments below expectations based on non-verbal ability. Similarly our estimated incidence of approximately 20% would be reduced to about 10% if an IQ cut-off is used. We argue that in planning educational provision, it is not appropriate to use such a cut-off because hidden disabilities can occur at any level of ability. Indeed, it seems quite likely that those with hidden disabilities and additional difficulties with language and cognitive processing, as indexed by IQ tests, will find it even more difficult to make progress than those learners who are more able and who have additional compensatory resources and strategies to draw on.

Consistent with the above argument, it is interesting to note that there are relatively few who have a profile of dyslexia of the kind that is often seen in the university and other adult populations, where it is often the case that literacy skills are within the average range but lower than might be expected given other skills. The implication from this research is that it is those with dyslexia and other hidden disabilities who lack other cognitive and cultural resources who are more likely to be found amongst the prison population.

It is acknowledged that other factors contribute to literacy





difficulties, but our argument is that the presence of a dyslexic pattern of strengths and weaknesses can be identified even amongst those who have other risk factors for educational failure and social exclusion.

The results of this study and the analyses reported show how the apparent inconsistency in previous studies may reflect differences in methodology and the framework for dyslexia that is used. Dyslexia is over-identified by simple interview and screening procedures and by equating it with poor literacy. It is under-identified if those with low IQ are excluded. Our results show overlaps between different patterns of hidden disability and these emphasise the need to take an individual and an inclusive approach.

**RECOMMENDATIONS**

On the basis of the findings from the Dyslexia Institute’s study into the incidence of hidden disabilities in the prison population, we make the following recommendations.

**1. Literacy Support**

Planning of prison education should recognise that approximately 50% of offenders will need some support because of poor literacy skills. This will include:

- i. Direct teaching of key literacy and numeracy skills
- ii. Support in accessing other educational and vocational training programmes
- iii. Adaptation of general procedures and routines within the establishment to remove barriers that would exclude participation by those with hidden disabilities
- iv. Linking the literacy support to the working environment

**2. Specialist Teaching**

20% of the population will require specialist support.

The research suggests that 2 in 5 of those with literacy difficulties are dyslexic or show features of a hidden disability which will create a barrier to their accessing learning/training and employment opportunities. These individuals will need to be given highly individualised support, including:

- i. Access to diagnostic assessments and support to individuals in understanding their strengths and weaknesses

- ii. Individual advice, guidance and support to create realistic action plans
- iii. Specialist teaching of literacy and numeracy skills
- iv. Teaching of strategies and techniques to minimise the impact of hidden disabilities in work and learning situations

**3. Work Focus**

Education services should be linked more closely to employment services to support and assist offenders into appropriate jobs and ensuring that they have the requisite skills.

**4. Awareness and Training**

To include:

- i. Awareness – All educational, training and resettlement staff need to be aware of the implications of hidden disabilities. Establishments should develop policies and practices to comply with ‘dyslexia friendly’ standards and similar standards for other hidden disabilities
- ii. Education providers should provide a systematic screening and assessment procedure, leading to individual action plans that support those with hidden disabilities and other individual needs. In practice, education providers will need to have access to specialist staff and to develop appropriate training
- iii. Those delivering education in offender settings should ensure that 50% of their staff are trained in the methods of literacy skills teaching and support programmes that are recognised as effective for dyslexic learners.

*Dr John Rack*

*Dr John Rack is Head of Assessment and Evaluation at the Dyslexia Institute*

**ACKNOWLEDGEMENTS**

- **Funding:** This research was funded by the Learning and Skills Council.
- **Research Assistants:** Sam Collyer, Sarah Edwards and Clare Richardson contributed to the design of the questionnaire, they co-ordinated the arrangements for visiting the prisons and processed the data.

*Would YOU like to teach for the Dyslexia Institute?*

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- **Interviews and Assessments conducted by:** Ros Lehany, Helen Graham, Andrea Manton, Kate Lutley, Pauline Welsh, Isobel Ericson, Ruth James, Sam Collyer and Clare Richardson.
- **Technical Advice and Support provided by:** Professor Margaret Snowling and Professor Cynthia McDougall of the University of York; Keith Hughes and John Orange of the Offender Learning and Skills Unit.
- **Prison Service staff** at the Yorkshire and Humberside Area Office and the eight prisons involved were particularly helpful. We particularly thank Vicki Read and Norman Heywood, and we especially thank John Orange for providing training and much encouragement.
- **Dyslexia Institute staff** have provided support and supervision and assisted with the development of the ideas. I particularly thank Kerry Bennett, Shirley Cramer, Margaret Rooms, Richard Drewe and Geoff Grant for comments on, and production of, the final report.
- **Project Director and report author:** Dr John Rack, Chartered Psychologist, The Dyslexia Institute

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# Playing to Children’s Strengths in Maths: using visual structured imagery in multi-sensory approach to teaching arithmetic

Maths

ROMEY TACON

*Until recently Romey was Head teacher of a (Dyslexia friendly) Infant School and Special Needs Facility in East Sussex. She was also a leading maths teacher for East Sussex. From 1996 to 1998 Romey was engaged as a teacher researcher funded by the TTA investigating the use of a variety of visual structured apparatus to support children’s arithmetic understanding – this resulted in the development of Numicon’s teaching programme with co-authors Ruth Atkinson and Dr Tony Wing.*

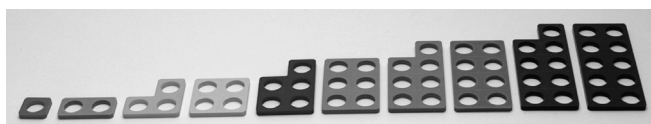
Between 1996 and 1998 I was lucky enough to be involved in a small scale collaborative action research project funded by the Teacher Training Agency (TTA) through their teacher research scheme. Out of this research grew Numicon – which is a multi-sensory approach to teaching arithmetic – using visual structured imagery within a structured programme of teaching activities.

The purpose of this article is to describe a little about the questions and ideas which prompted our research and the resulting teaching approach. I trust that this will be of interest to readers of this journal because certain features of this teaching approach, namely the visual imagery, the cumulative and progressive teaching programme, and the practical and multi-sensory teaching activities, are those recommended when teaching mathematics to children with Dyslexia. Misconceptions about place value and difficulty in remembering number facts up to ten are common problems for many children who are struggling in Maths. The teaching approach we have developed addresses both of these.

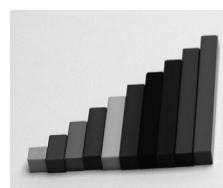
At the time of the research I was head teacher of an infant school – my earlier experiences as class teacher, as a maths co-ordinator and as a SENCO led me to question more and more deeply why it was that so many pupils did not really understand arithmetic. My maths co-ordinator, Ruth Atkinson, was asking similar questions. We had both found in class after class, in spite of lots of small group teaching, practice and repetition, many children simply did not understand number relationships and continued to rely heavily on counting procedures to solve arithmetic problems. At about the same time, national concern about standards in numeracy had led to the inception of the Numeracy Strategy.

## VISUAL STRUCTURED IMAGERY

The TTA research grant gave us the opportunity to see whether the visual images advocated by Catherine Stern in



Number shapes



Numicon rods

the 1940s and Caleb Gattegno in the 1950s could help children develop a relational understanding of number and use this to develop arithmetic capability.

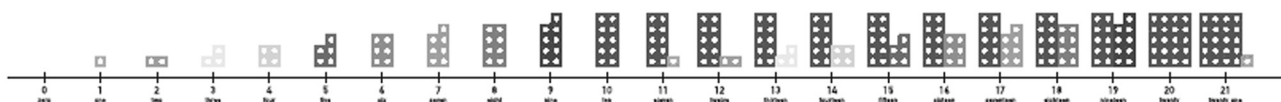
We saw that these visual structured images revealed number ideas and relationships that are not visually represented by numerals 1 2 3 4 5 6 7 8 9 10; these are after all abstract – arbitrary symbols representing important number ideas. Both Number rods and Numicon images represent numbers as wholes. Each Numicon shape looks like the value of the number it stands for, so in that sense shapes are less abstract than the rods whose values can only be seen when they are arranged in relation to one another.

Seeing the potential of these images to help children understand number really was a ‘light bulb’ moment – not a wholly comfortable moment as we realised that we had been expecting young children to work with abstract numerals in maths much too early.

## CREATING THE LEARNING ENVIRONMENT

We were acutely aware that in many classrooms number had a very low visual profile (this was in stark contrast to literacy where classrooms are coated in words and children have many visual literacy prompts). Therefore we decided to immerse children in a mathematically rich learning environment, where number lines were prominent and numbers were used to organise and label equipment. We wanted to give children a visual message that numbers are relevant and useful in everyday life and also give them points of visual reference to support their understanding of number.

A central feature of this environment was a large display





number line which relates the number word, numeral and actual size Numicon image with each point on the number line. It was the imagery which enabled children to connect their different number experiences, for example they could see that 4 is 1 more than 3 and 1 less than 5, that double 4 is 8, that double 8 is 16 and that 16 is recorded as 1 ten and 6 units. As well as helping children make these important connections such an environment would provide a meaningful mathematical context in which they could learn mathematical language.

## THE PROGRAMME OF TEACHING ACTIVITIES

Through the research we set about devising a programme of teaching activities which used the images in a multi-sensory way that would be easily followed by teachers. Dr Tony Wing of Brighton University was our HEI (Higher Education Institution) support throughout the project and we met with him often to discuss the children's responses to the activities as we devised them. We would also discuss our reading. It became clear to us that often children are expected to take on too many difficult ideas at the same time. Therefore we were determined that the programme of teaching activities would be carefully structured to support children's learning so that each new idea would build another small step on established understanding.

The programme of activities developed as we worked with the children. The activities with the images ran alongside and then became integral to the children's usual maths work, which included daily counting, frequent work on pattern, and data handling (sorting), shape and space and measures. The activities were basically a series of 'games' initially modelled by the teacher, usually to small groups of children. The multi-sensory aspect was furthered by the use of a feely bag in many of these early games; doing so seemed to encourage the children to develop a mental picture of the shapes. We made a point of identifying and modelling the mathematical language that could be learnt through each activity, as it is important for children to learn the language attached to mathematical structures, so that they are able to generalize their arithmetic and apply it to solve problems both in their classroom arithmetic and in real life situations.

Once children understood and could do an activity they would then practise independently, often working with a partner. All the activities were practical and used the Numicon images and number rods so that children always had a picture of the idea they were meeting. Children seemed to cope happily with both the Numicon shapes and number rods, and would sometimes use a mixture of 10-rods and 10-shapes to make a high number if they didn't have enough 10s of one sort of apparatus – it seemed that they had generalized the idea of 10 and could use either image to represent it. Neither did we find that the different colours of the rods and shapes presented difficulties.

As the programme developed the earlier familiar 'games' would be re-introduced with a refined learning objective and the associated new mathematical language. This careful cumulative structure is demonstrated in the following description of how early activities laid the foundation for practical arithmetic with the imagery, so that children knew

some number facts before they were introduced to arithmetic signs.

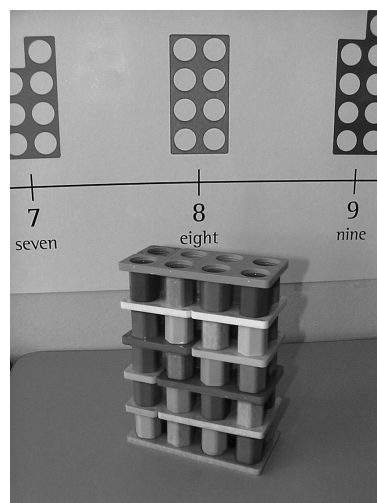
## EARLY ACTIVITIES

When the children first met the images they had lots of opportunities to play and experiment with them. The first teaching activities were essentially pre-number – learning the patterns of the Numicon images through a series of practical 'games'. When the patterns were mastered children were then asked to order them by size. Only when children could do this with confidence were they asked to give the images the number names they had learnt by counting every day, and only when children could confidently associate each image with its number name were numerals introduced. The children could then start to move, combine and compare the shapes to begin to do arithmetic. Alongside this work with the Numicon shapes children would follow similar activities with number rods.

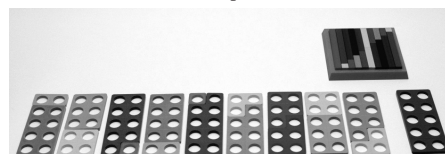
## BEGINNING ARITHMETIC

Addition was introduced first using the Numicon shapes and pegs; children could build towers with combined shapes that represented number bonds. We found that they enjoyed discovering many combinations for each number and needed to do this often before they were interested or ready to focus on 'one more' or the addition of 1. Subtraction was introduced as pretending to 'chop off' or hide part of a shape because it is not possible to literally 'take away' part of a Numicon shape. The comparison and difference structure of subtraction was introduced by a series of games where two numbers were generated and the children then compared the two corresponding shapes to see the difference. Again children needed to do these activities often before they were ready to learn about '1 less' (fewer). Running alongside arithmetic with the Numicon shapes children also built patterns and bonds of numbers up to 10 using number rods in little trays made to fit the rods.

Building towers with shapes and pegs



Addition facts of ten with rods and shapes







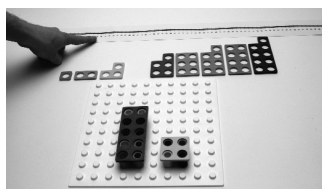
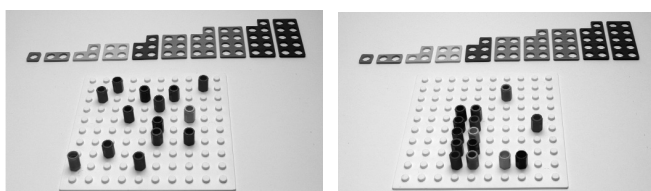
INTRODUCING ARITHMETIC SIGNS + = -

The next stage was to consolidate addition and subtraction facts up to 10 through practical activities and to make sure that children could describe what they were doing clearly using appropriate mathematical language e.g. ‘I am putting 1 and 9 together, I am making 10’. Only when we were confident that children could do this with understanding did we introduce the + sign with the action of crossing the forearms saying ‘I’m putting it together, I’m adding’. Before children were introduced to the equals sign they worked on the language of comparison and used the < > signs first with objects and pictures and then with the Numicon shapes. The shapes were put into a pair of balances (the weight of structured apparatus allows this). Inevitably children discovered that two matching shapes balanced, a sign was needed for this and so the = sign was introduced as the sign of equivalence. The action used for equals was holding the forearms above one another across the chest whilst saying ‘is equal to’. Subtraction was finally introduced – the action was to hold one arm out horizontally and draw it back towards the body saying ‘I’m taking it away’. As each sign was introduced the beginning arithmetic activities were revisited and now children were able to record their arithmetic initially by laying out little cards showing the numerals and signs and then by writing it down.

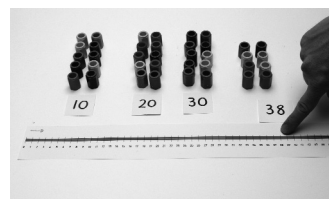
The cumulative small steps approach described above gave ample opportunity for practice of number facts up to 10, and we found that children became confident and began to remember these facts. They did not need to count to answer arithmetic problems because the images had encouraged them to use numbers as ‘wholes’. All this teaching was taking place in the number rich environment and frequent reference would be made to the display number line.

COUNTING AND PLACE VALUE

It was important for children to count every day and this was encouraged and extended by always making reference to number lines. In the early stages of learning to count reference would be made to the display number line with the images, so learning about place value was embedded in children’s number experiences from the very beginning. They used their knowledge of the Numicon patterns in an activity called ‘how many without counting’, where a handful of pegs or counters is taken and arranged in the Numicon patterns to see how many there are, as shown below.



This activity was repeated throughout the teaching programme with higher and higher numbers as children’s counting range extended.



The programme continued with beginning arithmetic strategies, extending addition and subtraction to 100, introducing multiplication and division and beginning fractions, which addressed the essential number ideas of Key Stage 1 of the English National Curriculum. We consistently encouraged children to see patterns and connections in their number work and to extend these to develop more advanced ideas. Connections between pure number ideas and everyday world contexts were made throughout the teaching programme.

INTRODUCING NUMICON TO NEW USERS

Learners of any age starting to use Numicon need opportunities to experiment with the images and to learn the patterns before they are expected to use them in arithmetic. For some children this takes only a short time; others with more entrenched problems will naturally take longer. Once children have internalised the Numicon patterns and are beginning to understand numbers and number relations, they no longer rely on the physical shapes but start to use their own mental imagery – seen in their mind’s eye. However when they are learning a new strategy they will benefit from using the structured imagery. It is important that children are encouraged to think and to ‘see’ and use their mental imagery, especially when they are having difficulties in remembering number facts.

FINALLY

The ideas we developed whilst working with teachers and children are only starting points, we do not claim to have exhausted the huge potential of Numicon as a teaching resource. Every teacher and TA using structured imagery has their own insights and discovers further ways of using it. One of the greatest joys is that children’s thinking is ‘on the table’ shown in the way they arrange the imagery, and both the child and teacher have a context for using mathematical language.

Our research findings showed striking evidence of children (from all ability groups) responding positively to visual structured images and the related programme of activities. The teaching approach deliberately plays to children’s strengths as visual learners and also to their strong sense of pattern – so they learn by seeing and doing. It seems likely that the imagery supported children’s memory for number facts and their understanding of number relationships. Since then the teaching approach has been found to be helpful for addressing misconceptions about number ideas in older children and also for supporting children with special needs, particularly where there are auditory and working memory problems. Positive comments from teachers using Numicon



suggest that the positive impact on children's confidence is remarkable. However it must be stressed that structured imagery does not raise children's achievement on its own: children may have immediate insights about number relationships when they see the images but raised achievement comes only through patient and consistent building of understanding through active teaching using the imagery.

Romey Tacon

*Romey Tacon now teaches part time at Brighton University and carries out training for teachers and other professionals in the use of visual structured imagery including Numicon materials.*

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Note: A summary of the research report referred to in this article called *Learning about numbers with patterns* by Ruth Atkinson, Romey Tacon and Tony Wing is downloadable free of charge from [www.beam.co.uk](http://www.beam.co.uk) Reference RESO4.

# Dyslexia Institute and AchieveAbility – working together to break new ground in Aimhigher

MICHELLE GAMMO-FELTON

Aimhigher is a Higher Education Funding Council for England (HEFCE) initiative which informs and encourages wider participation in HE. One of its stated aims is to help widen participation in UK higher education – particularly amongst students from non-traditional backgrounds, minority groups and disabled persons.

*AchieveAbility is a ground breaking national Aimhigher project, which aims to break down barriers to higher education for students with Specific Learning Difficulties (SpLDs).*

*The project seeks to improve access for pre-entry SpLD learners to HE through raising awareness of opportunities and support leading to successful qualifications and employment. Learners with SpLDs in schools and FE at level 3 who have not been included in Aimhigher outreach activities to date will be targeted for project activities.*

The need for urgent action was highlighted in recent recommendations from the Government's National Disability Team, which found that SpLDs are the hardest conditions to identify – with learner assessment often coming late in the academic life of students. These learners are the highest percentage (around 70%) of disabled students in HE. Despite this these students have never before been targeted by Aimhigher initiatives. This is the first national Aimhigher project to deal with the progression of students with SpLD.

The University of Westminster is working in partnership with the Dyslexia Institute and the BDA, as well as Aimhigher regional coordinators, universities, colleges and voluntary sector agencies on a two-year Aimhigher project to raise awareness of SpLD in schools and colleges.

The £478,000 project, funded by HEFCE, will target four Aimhigher regions; London, South West, West Midlands, and Yorkshire and Humberside.

Strand two of the project is a national aspiration raising programme. SpLD learners often feel that there are too many barriers to Higher Education, and therefore progression is low for them. This could be due to a lack of understanding or knowledge about provisions for SpLD learners in Higher Education. It may also be due to the lack of positive role models.

The AchieveAbility project aims to fill this void by providing positive role models who can offer advice, understanding and encouragement to the SpLD learners. This will be carried out by delivering ambassador outreach activities. These activities are designed to raise awareness of the opportunities in Higher Education for year 12 SpLD learners in Schools and Colleges.

Ambassador students have been used in many universities, including the University of Westminster, to promote the advantages of HE. In this project, the ambassador students will themselves be SpLD HE students. Once trained, they will visit schools in their regions (under the direction of the local Aimhigher offices) and give informal talks to SpLD students on the reality of HE for people just like them.

In partnership with the Dyslexia Institute and the Aimhigher regions, the AchieveAbility project aims to recruit and train eighty Higher Education student ambassadors, across the four Aimhigher regions. The HE students will have personal experience of SpLD and progression on to Higher Education. Strand two of the project aims to inspire and support SpLD HE potential.

The intention of this strand is to recruit twenty SpLD students from each region by the end of March 2005, to begin outreach work in May 2005. These students will be based at various Higher Education Institutions (HEIs) across each of the Aimhigher regions. Working with the Aimhigher regional



coordinators are the following institutions:

- Birmingham University
- Brunel University
- Huddersfield University
- Kings College London
- Leeds University
- Thames Valley University
- University of the Arts
- University of Central England
- University of the West of England
- University of Westminster
- Wolverhampton University
- Worcester College

The project office, Aimhigher coordinators, and key people in these institutions, such as widening participation officers, and disability officers, are working in partnership with HEIs in a [very] unique way to recruit the students.

Once the students have been recruited they will embark on a training programme which has been devised by the Dyslexia Institute in partnership with the Project Office. The Dyslexia Institute is currently in the process of collating a pack of information for the students to receive prior to their training sessions. SpLD students often need more time to digest information, so by sending this out two weeks before the training the students will have a chance to acquaint themselves with the content and to come with questions. The pack will contain information to enable the ambassador students to deliver informal presentations on areas such as: Why go to university?; What support can you expect for your SpLD?; What to expect from the Disabled Students' Allowance? (DSA). The ambassador students will be encouraged to *personalise* the presentations with their own experiences: this is the kind of support that *I receive*; this is what the DSA helps *me* with – as well as giving generalised information.

One of the challenges of the project for the Dyslexia Institute is how to enable the ambassador students to access all this information quickly and easily in order to give the presentations with confidence. They certainly won't be able to remember all the information so it will need to be presented in a SpLD friendly format, accessible for quick reminders.

The training is unique in the UK as it is designed specifically for SpLD students, who will deliver outreach activities to SpLD learners. After the training the students will begin outreach work with at least 200 learners in Schools and Colleges in each of the four Aimhigher regions.

The Dyslexia Institute is also responsible for producing a CD-ROM which the ambassador students will have as a tool to assist them in their work. The CD will contain much of the information contained in the ambassador materials as well as case studies (with audio), further role models plus web site links for access to fuller detailed information. The DI is currently asking its HE students: *What do you wish you had been told about university before you got here?* The answer to that question is what needs to go on the CD.

The challenges for the CD are how to make a 16 year old with SpLD a) look at the CD in the first place and b) stay looking

at it – as well as listening and reading from it. Again the information has to be instantly accessible and also engaging for this age group. And all within budget as well!

There has never before been such a unique national partnership between Higher Education, Aimhigher and the Voluntary sector to deliver outreach work which aims to raise aspirations amongst a key group of students. It is hoped that the project will make an immediate impact on the lives of the SpLD learners and SpLD HE students. The valuable contribution made by the Dyslexia Institute has helped make this possible.

There was a national conference on 4 March 2005, at which speakers from the key partners and other organisations discussed the issues faced by SpLD learners, and the barriers to Higher Education.

The project will feedback at a national conference due to be held in Spring 2006. The project is expected to inform the national debate on disability and help schools, colleges and universities comply effectively with the Special Needs and Disability Act 2001.

*Michelle Gammo-Felton*

*Michelle Gammo-Felton is Project Co-ordinator for the AchieveAbility project and is experienced in training and working with Ambassador Students.*

*Anyone with a story to tell for the CDROM please email [mrooms@dyslexia-inst.org.uk](mailto:mrooms@dyslexia-inst.org.uk) ASAP.*



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# The Adult Literacy Programme (ALP)

GINA PLANT

*'That first time I came here and you told me that there was a vowel in every syllable changed my life! From then on every time I want to spell a big word I count the syllables, count the vowels and I know .. straight away... I just know! For me that's the best thing that's ever happened.'*

(A dyslexic adult studying at one of our Dyslexia Institute Centres)

How often do we as teachers underestimate the impact our teaching has on our adult clients? The world of special needs is a caring, demanding and challenging environment, but oh how wonderfully rewarding when just a small piece of information, delivered in the right way, at the right time can have such a self-empowering effect.

When, in 1999, the Moser Report identified that seven million adults in Britain were functionally illiterate the main concern for those of us in the Dyslexia Institute (DI) was the ten percent of those where undiagnosed or unsupported dyslexia was likely to be an issue.

In February 2001, with a generous donation from News International, an Adult Steering Group was formed with the aim of developing a strategy for increasing adult provision. Members of the group included DI teachers, teacher trainers, psychologists and managers from across the regions providing a mix of minds and skills that has ensured lively meetings, thoughtful research and daring development projects from that day to this. ALP was one of those daring development projects that found its way onto my desk!

The DI's partnership work as a member of the consortium responsible for delivering the Skill for Life Learning Materials (2002) helped us in our analysis of the resources available for Basic Skills tutors to meet the needs of dyslexic adult learners. Once individual skills could be related to the levels of the Core Curriculum (BSA 2001), the challenge presented by a spiky profile covering a range of levels rather than fitting neatly into one category became crystal clear. Generally we see adults needing materials at higher levels at text focus rather than word focus, higher levels at speaking than listening, and mostly, but not always, higher levels at reading than writing. The Adult Strategy Group became preoccupied with this question and eventually came to the very firm conclusion that the Skills for Life Learning Materials (2002) and Training, together with the advice and guidance on differentiation, did resource Training Providers well except in the word focus element of the Core Curriculum (BSA 2001). In addition, where the gap was being filled by specialist tuition, there were heavy cost implications presented by the need for the 1:1 support necessary for dyslexic learners to be able to acquire those elusive automatic decoding skills. Could we develop a resource that would go some way to filling this gap more effectively?

For ten or more years, many of us teaching adults within the DI have used a shortened and adult orientated form of the

Dyslexia Institute Literacy Programme (DILP, Walker 1993). In January 2002 we developed that further by mapping it to the Adult Core Curriculum (BSA 2001) and produced a new Adult Literacy Programme (DI, 2003) for use within the DI. Though useful, it still had limitations in that success was reliant on a good deal of teacher input, and teachers were finding it difficult to deliver effectively to learners working in groups.

So we had taken only a tiny step forward in meeting our self-set challenge. In all of our discussions we kept returning to the fact that when working independently i.e. without a specialist teacher to present the information in a way in which the dyslexic adult can learn, the activity becomes practice rather than learning, and often practice without quality because of the memory difficulties. But, discuss we did, and, it was in April 2002 that the simple solution seemed to 'pop out' of the discussion and into the Minutes of the Meeting within a matter of seconds: a semi-interactive programme incorporating the 'voice of a specialist teacher' and animated displays!

We formed a working party with Glenys Heap and Aleyne Hancock from Leicester DI, Ros Lehany from Leeds and Debbie Stockley and myself from Stone in Staffordshire. We found a brilliant animator in Simon Bancroft [www.elephantegg.co.uk](http://www.elephantegg.co.uk), a wonderful IT consultant in Andy Daniels, [www.mangolab.co.uk](http://www.mangolab.co.uk). The 'voice of the specialist teacher' was found in the kind, generous and softly spoken actor, James Warrior. We needed funding, so quickly put together a rather primitive demonstration reel but it was sufficient for Judy Apiafi, Manager of the PALS project, to spot its potential use with the Probationary Service, and kind sponsorship from Nottinghamshire Probationary Service ensured that we had enough money to continue with development. Only half aware of the problems and difficult decisions that lay ahead, we embarked on what turned out to be an enormously exciting and challenging project. Although there were times when it seemed that a limited budget and the pressure of work from our 'normal jobs' might defeat us, by the end of December 2003 the final compilation of the disk had been made and the master copy of the photocopiable work books written.

In January ALP was launched at BETT 2004.

## ALP: What it is

ALP is a computer based programme aimed at teaching the word focus elements of the Core Curriculum (BSA 2001) to dyslexic, or potentially dyslexic people in the 16+ sector, but has also been found to be useful for 14 to 16 year olds.

It is divided into 24 sections mapped to the Core Curriculum







(BSA 2001) as follows:

- Sections 1 – 10: Entry 1
- Sections 11 – 20: Entry 2
- Sections 21 – 22: Entry 3
- Section 23: Level 1
- Section 24: Level 2

When mapping to the Core Curriculum (BSA 2001) some minor adjustments have been made to ensure effective learning. Entry 1 of the Adult Core Curriculum (BSA 2001) aims to cover the single letters with the initial and final blends, Entry 2 is devoted to the long vowel sounds and Entry 3 and above to the suffixes and prefixes. For our programme, we felt that the introduction of each of the suffixing rules and the spelling patterns for the long vowel sounds needed to be spaced out over a longer period. Therefore, in ALP, we pace the introduction of the suffixes over Sections 11 to 20, although knowledge of them is not expected to be demonstrated until Entry 3.

The learners progress through each section working from the CD-ROM and recording in one of 24 individual workbooks. The workbooks are supplied as photocopiable masters. The programme content is carefully designed to allow students to work at their own pace, ensuring that new information is presented in a structured, cumulative and multisensory way, and that previous learning is sufficiently reinforced. The structure reflects the changing need of the learner as (s)he progresses through the Core Curriculum (BSA 2001), needing to focus heavily on the development of automatic decoding and encoding skills at Entry 1 and 2, but less so from Entry 3 upwards. By the time (s)he reaches Levels 1 and 2 much of the work will consist of text level reading and writing and work or study related activity.

ALP can be used by any specialist teacher *i.e. a teacher who has successfully completed a British Dyslexia Association accredited specific learning difficulties/dyslexia training course (AMBDA & ATS, including FE/HE)*. We hope it will bring about an increase in the number of dyslexic adults who can access specialist tuition.

ALP can also be used by the non-specialist teacher who successfully completes the Level 3 accredited course: ‘Supporting Adults in Dyslexia and Literacy’ provided by The Dyslexia Institute Training Service. A free copy of ALP is included in the course fee and teachers will be trained how to use it effectively as well as how to better understand and support their dyslexic learners. We hope that this will increase the number of teachers who can effectively identify and support those dyslexic learners who lie in the milder categories. *(Full details of the course can be found on our web site.)*

In this way, we hope to achieve our national objective of increasing the number of identified and adequately supported dyslexic adults.

**ALP: What it is not**

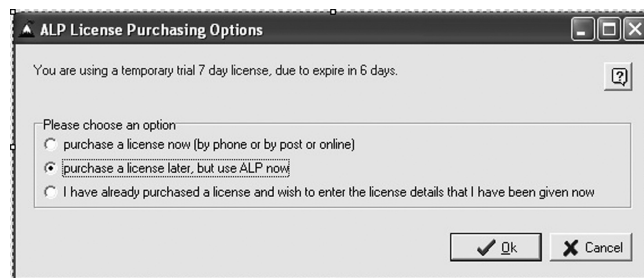
ALP is not a stand-alone programme. The learning will not be successful without management and input from a qualified teacher, who will need to tailor, pace and reinforce the

programme according to individual needs, as well as individually train the weak processing skills that lie at the heart of the learning difficulty e.g. phonological processing, short term memory, visual/auditory discrimination.

**THE MAIN FEATURES**

**1. User Licence**

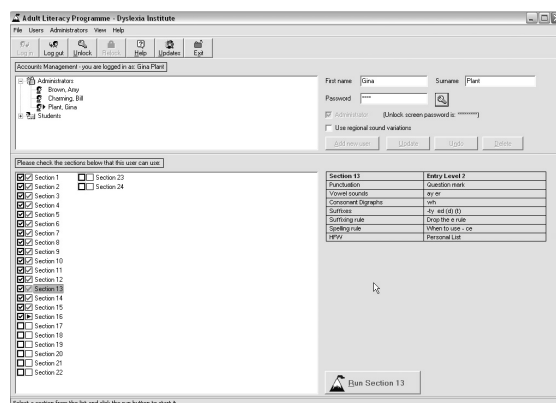
A free 7 day licence is included in the Demo disk. When you purchase ALP you will be issued with a full one year licence. This is renewable annually for a small fee and is intended to ensure that all users are kept up to date with developments and that quality of provision for dyslexic people is maintained.



**2. The Administrator's Screen – Account Management**

This allows the teacher to:

- Add and delete other teachers’ names.
- Add and delete student names.
- Create, view and change passwords.
- Give individual students access to specific sections.
- Use regional sound variations (*see below*). Check the box to hear words spoken with a short (a) sound: ‘bath’, clear the box to hear words spoken with a long (a) sound: ‘barth’.
- View the contents of each section.
- Run any section from this screen.



**3. Regional variations**

Some learners have difficulty with reading and spelling closed syllabic words containing an ‘a’ sound, when the model being used is not similar to their own regional accent. Many in the North pronounce this with a short (a) sound as in *cat*, whilst many in the South pronounce it with a long (ar) sound as in *park*. ALP allows each student to choose which (s)he prefers and this can be set by the teacher in the Accounts Management Screen (*see above*).



#### 4. New Teaching Points



This 'information' symbol briefly appears on the screen at the beginning of a new teaching point.

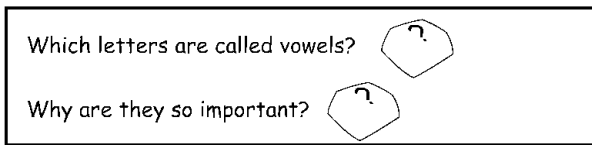
Uppermost in our minds when teaching dyslexic learners are the inherent memory difficulties. All of our teaching is based on the premise that much of what we say to our students is likely to be forgotten. In fact many of our adult students find their first lesson with us the most comfortable learning situation of their lives because they recognise that their memory problem has, at last, become a shared responsibility. The teacher takes equal, if not greater, responsibility for reliable retention of new information than the learner. Direct Discovery Teaching methods have long been used successfully in our work; using questions, hints, nudges and winks to elicit the new information from the learner is far more successful in terms of retention than relying on listening and remembering skills.

One of the biggest challenges in the development of ALP was how to simulate this scenario when introducing a new teaching point on the computer.



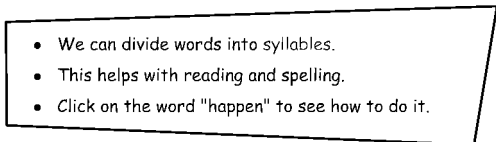
We found the solution in this button. We call it the 'guess key'; it is important that the learner is trained how to use it correctly.

Here is a typical example of how it is used in the programme.



The questions are heard, but the learner must understand that (s)he is not *expected* to know the answer, though they might like to have a guess – and – who knows, they might be right! With this approach the learning experience will be a positive one. The 'guess key' triggers the learner to pause, and think, By trying to work out and articulate the answer, the learner is immediately engaged in the learning process. Clicking the 'guess key' triggers a verbal answer.

Rules like syllable division are often introduced through animated demonstrations.



happen



In this example taken from ALP Section 3 the screen is seen, and the instructions are spoken.

The learner clicks on the word 'happen', sees exactly how to

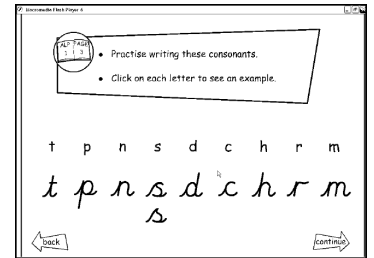
code the word and hears how to pronounce the reading language and the spelling language correctly.

This button, found on the bottom left hand side of the screen, gives the learner the opportunity to go back over the demonstration as many times as (s)he feels necessary.



#### 5. Cursive script

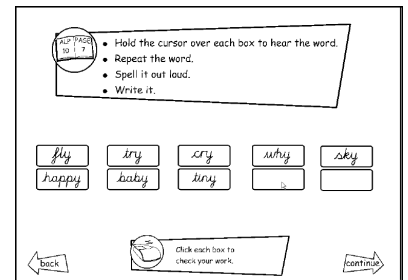
Throughout the programme, cursive script is encouraged because of the benefits it has in terms of retention of spelling patterns. The exercises in the workbooks give the learner the opportunity to use handwriting skills in addition to word processing skills, thus providing the important kinaesthetic element in the multisensory learning process. Animation helps to trace the movement of the pen when forming single letters and provides a good model for the learner to follow. Alternative shapes for some letters are provided.



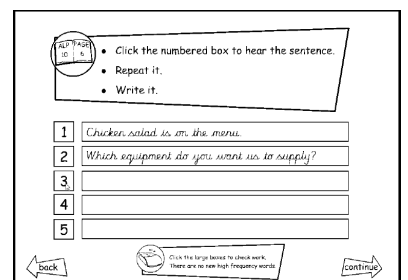
#### 6. Dictation Exercises

Towards the end of every section dictation exercises test how well the spelling skills have been retained.

The learner holds the cursor over a blank box, listens to the word, writes it in his/her workbook and then clicks the box to check his spelling.

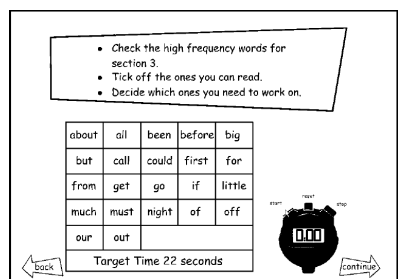


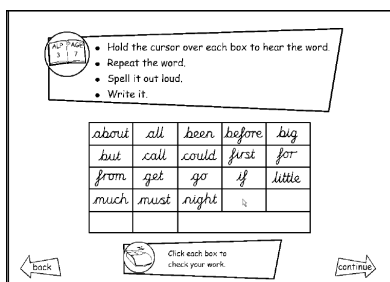
In sentence dictation, the user clicks the numbered box, listens to the whole sentence, repeats the whole sentence and writes it in his/her workbook. By clicking the box next to the number the written sentence is revealed and the learner can check his/her own work.



#### 7. High Frequency Words

Sections 1 to 12 give practice in the reading and spelling of the words targeted in the Core Curriculum (BSA 2001). Automatic decoding skills are sometimes difficult to develop, but we should try to aim for a target of one word per second for most adults. The on-screen stop watch



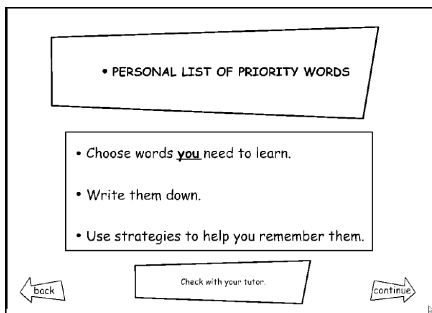


acts as a motivator to practise until the target is reached.

Spelling is covered by a dictation exercise.

From Section 13 onwards learners are encouraged to create a personal list of words

concentrating on those they need to spell for social, study or work related reasons.



ALP differentiates between structured and unstructured words, encouraging

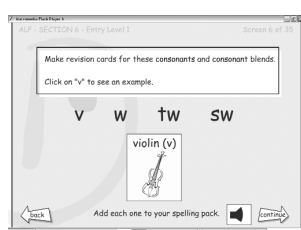
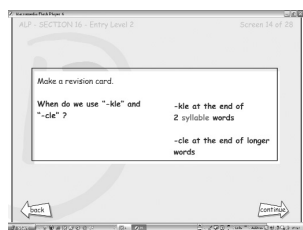
the learner to explore the use of mnemonics when trying to remember irregular words.

8. Revision

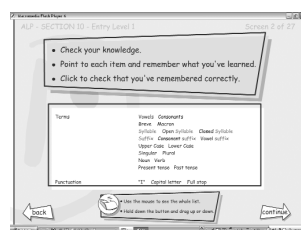
This reassuring symbol is used to prefix any activity that has previously been covered. Therefore the learner is alerted to the fact that he is about to practise an existing skill, or have the opportunity to remind himself of something previously taught.



After the introduction of each new teaching point, the learner is asked to make a revision card. Daily practice of the pack provides the over learning necessary for long term retention and automatic recall.



At the beginning of each of the 24 sections except the first, a scrolling list of work previously covered allows for constant cumulative revision and self assessment for the learner as the user can just point and say, or click on any of the items to hear a spoken response.

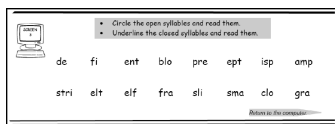
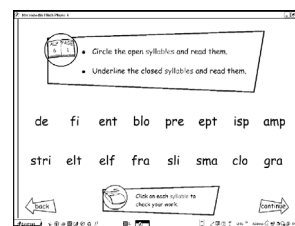


Revision exercises are self checking. They allow the learner to regularly practise skills previously learnt. Teachers will need to supplement these exercises with their own materials according to individual need.

Instructions are given on screen with, often, a demonstration

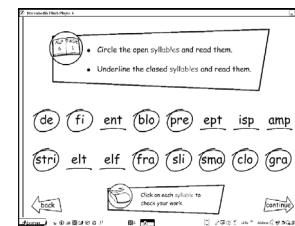
to ensure full understanding.

The learner then does the exercise in his/her workbook ensuring the valuable kinaesthetic element is included in the learning process.



The learner is then signposted back to the computer screen, clicks the mouse to see the answers and hear each of the syllables read out loud correctly.

Many adults like to repeat these exercises many times and the computer, being non-judgemental, allows for this to happen with no loss of self esteem for the learner.



CONCLUSION

ALP is based on the Dyslexia Institute Literacy Programme (Walker 1993) and many specialist teachers will have spotted a number of tried and tested teaching methods and will understand how to supplement and adjust the programme to suit individual needs.

Offering ALP to non-specialist teachers who qualify on the Level 3 course: Supporting Adults In Dyslexia & Literacy, has already led to some very positive feedback, as can be seen by this comment made by one successful candidate:

*'I now intend to use the ALP programme with other learners, to progress them, build their confidence and aid self development. I have made recommendations to management to consider sending other staff on the same course and give our learners more opportunity to access this excellent learning resource.'*

Gina Plant

Gina Plant is Principal at the Stone and Derby Centres for the Dyslexia Institute.

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## Managing ADHD – the teacher–parent partnership

FINTAN J. O'REGAN MA

Attention Deficit Hyperactivity Disorder (ADHD), the term used to classify extreme symptoms of Inattention, Impulsivity and Hyperactivity is one of the most challenging and controversial areas of special education facing teachers in UK schools today.

The DSM1V (Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> edition 1994) recognises 3 sub groups of ADHD: those which it describes as Hyperactive Impulsive Type, Predominately Impulsive Type and Combined Type but in reality we are usually looking at two specific patterns of behaviour. Those children who cannot sit still, are highly impulsive and appear driven by a motor and those who appear to be mentally hyperactive otherwise known as ...the space cadets.

The most recent explanation for those more obvious Hyperactive/Impulsive types is a term which is known as Response Inhibition which seems to suggest that individuals live essentially in a constant state of being on high alert. They appear unable to shut out any sensory, visual or auditory stimuli coming their way and are therefore unable to concentrate enough to make use of incoming information.

The following typical examples of child behaviour might help to clarify the situation further.

It's 8.25 and Daniel is due out of the front door to join his twin brother and elder sister but decides he does not want to wear his coat and is crying, saying he does not want to go to school today ... this has been a pattern of the last few days. This 4 year old boy who is being demanding and difficult is disrupting the normal flow and frustrating the mother.

Verbal pleading is ignored as are threats with a shake of the head and he will not voluntarily put the coat on ... the clock is ticking...later than 8.30 all 3 will be late for school ... options are limited. Sending him to his room is not a possibility at this time, Daniel probably even knows this. The net result is that he is forced to wear his coat and is dragged screaming down the street and howls all the way to school together with bemused twin brother and older sister and highly agitated and embarrassed mother ... the next morning the same thing happens and the next...

Now though this is not typical of every child and is certainly no reason to rush for a label off the shelf, the mother tries the regulator format of the sticker chart and for every morning that no complaints occur Daniel gets a sticker ... 10 stickers he gets a specific reward and to make it fair the whole family goes out for dinner ... Daniel likes the concept ... and wears his coat, he gets his sticker, he is able to self regulate.

Contrast this with the following:

*Ivan was having a typical day whereby he just couldn't keep still and kept on fiddling with a pen which once taken away by the teacher became replaced by an elastic band which was flicked across the room and struck Sadie across the face ... 'Ob' she cried ... 'Ivan you shouldn't have done that', as she stood up yelling in the middle of the class ... The teacher Mr Flynn had had enough of this and of Year 8c in general ... 'Out,' he said to Ivan. 'Off to the LSU. Go and see Ms Parker.' Ivan didn't mind as he quite liked Ms Parker and preferred the sanctuary of the Learning Support Unit.*

*As he left the classroom he saw Mark and as he passed him whispered something into his face ... now Mark flew out of his seat ... ran after Ivan out of the classroom and the 2 of them began pummelling each other in the corridor. Before Mr Flynn could move, 5 other students had run out of the classroom to watch the action ... Mr Flynn rushed out, pulled the 2 boys apart with Ivan laughing and Mark spluttering still furious, 'He cussed my mother ... Sir!'*

*Instead of being at Homework club after school, 13 year old Simon was spotted outside on the street on his skateboard. After being asked to come inside and join the others Simon appeared flustered and disorientated and was finding it hard to settle at his desk. Also, his skateboard kept getting in his way. Simon, though badly disorganised, was usually a most passive and generally compliant student. After the 4th minute of watching him struggle to get started the teacher suggested that he would remove his skateboard until later. It came as a tremendous shock to the teacher when Simon's response was to jump out of his seat in a furious temper yelling, 'If you do that you'll be sorry'.*

*The room became a deadly hush apart from one child who whispered ... 'Ob dear'.*

*After his outburst Simon now sat slumped, spent in his chair ... On the teacher approaching him Simon put his hands over his ears and started sobbing, saying 'I'm such a bad kid'.*

It is obviously difficult to assess how much time and what it costs to support children with ADHD but one thing is clear, learning difficulties accompanied by behavioural issues cost a great deal of money. As in most businesses today, the most expensive resource in schools is personnel. Learning and behaviour difficulties engage vast amounts of personnel time in terms of specialist teaching (often 1-1 provision), additional learning support staffing and a range of time consuming meetings, conferences, phone calls, paper administration and communication with external agencies.

To illustrate this, recently I spent most of a particular Tuesday on one issue, for which seven other adults including the Senior LEA Educational Psychologist, a social worker, the child's current Head teacher, the classroom teacher, two learning support teachers, the careers advisor and the parent also needed to be involved.





This is not a unique scenario as on a day-to-day basis throughout the UK vast resources are absorbed in planning, managing and teaching children with ADHD.

Within mainstream schools however, children with ADHD will require varying amounts of support dependent in part on the nature of their difficulties, the type of school they attend and, to a very large extent, the training of the SENCO and SEN skills/knowledge/attitude of the majority of the regular teaching staff.

Although there will be differences across the UK, one issue is clear, inclusion means different things in context of each specific school. In some schools children with ADHD can spend up to 85% of their day in the school's Learning Support Unit, either directly with the SENCO or with a LSA, supervised away from their main classroom.

The real question of course is the potential cost for schools both in terms of identification and provision of ADHD. Conservative estimates as described by Paul Cooper, Professor of Education at Leicester University, place the number of school age children with ADHD within the UK at this time at approximately 500,000, though less than 50,000 students have a diagnosis at present.

There is no doubt that early identification and intervention in teaching and management of students with ADHD can play a huge part in preventing secondary behavioural issues from developing and this philosophy was extolled by Estelle Morris the former Minister of Education regarding the revised 2001 Code of Practice when she commented *'the focus is on preventative work to ensure that children's special educational needs are identified as quickly as possible and that early action is taken to meet those needs'*.

In reality however, in every class of 30 children it is likely that there will be between 1–2 students with ADHD. Due to the potential impact of these children on the class dynamics in terms of teacher time and social interaction, it could well be argued that ADHD either directly or indirectly will affect every student within every classroom in the UK.

**THE EDUCATIONALIST'S PERCEPTIONS OF ADHD AS A MEDICAL DISORDER**

Although many teachers, support staff and administrators are aware of the term ADHD, few see it as a medical disorder rather than a sociological behavioural issue. This to some extent is understandable by the very fact that teachers at the 'coal face' will have to address the core symptoms of inattention, impulsivity, hyperactivity and often other behavioural/socialisation difficulties.

Teachers generally feel more comfortable in what they perceive as, and are classified as 'Specific Learning Difficulties' such as dyslexia. As a group they are often quite defensive about behavioural issues with specific students, which unlike learning difficulties can often make individual teachers feel uncomfortable about their perceived management of particular students.

Within the school context Head teachers and mainstream classroom personnel, including teachers and learning support teachers, rely heavily on the skills, experience and expertise

and to a large extent belief and philosophy, of the school SENCO.

However the SENCO in turn has to deal with what can be classified as the 'third principle' of the typical mainstream teacher body. Within this theoretical arrangement, although based on a great deal of experience, it is my belief that three distinct groups of teachers exist in most mainstream schools.

Group 1 will be those teachers who are fairly well versed in current educational thinking and/or will be open to new ideas and concepts in general including issues of SEN/ADHD. Group 2 will be teachers who are fairly rigid in their thinking and ideas and really see themselves first and foremost as curriculum providers.

The third group lies somewhere in the middle of Groups 1 and 2 and to a large extent will determine how successful the school will be with dealing with SEN.

**WHERE ADHD FITS INTO THE EDUCATIONAL AGENDA**

No blame should be attached to teachers about confusion or misunderstanding over the ADHD term, despite individual government departments stating their desire to take 'direct action in terms of early diagnosis and treatment'. This is due to the fact that the main tools for documenting the range of SEN terms within the UK do not directly mention the ADHD phrase.

Not in the old or revised Code of Practice is the term ADHD found or written in this form, although Paragraph 7.60 in the Behavioural Emotional and Social Development Section of the code makes specific references to *'interventions for schools to support pupils who are hyperactive and lack concentration'*.

Ofsted, even within their own 12 broader categories of SEN that are used within the school inspection process and adopted by the DfES, cannot find room for the term ADHD.

Historically it was difficult to get consensus for the eventual revised 2001 Code of Practice with the main issues relating to specifying and quantifying provision in SEN statements.

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However a number of debates have occurred in the House of Lords with regards to SEN provision over the past few years. On 5<sup>th</sup> February 2003 a lengthy debate took place in the Lords, specifically about the subject of ADHD, which begs the question, why is the area not more clearly stated in official documents in schools, when obviously accepted and understood by Government departments?

**MORE EFFECTIVE COMMUNICATION ACROSS AGENCIES**

Better cross agency communication is, according to Professor Paul Cooper the 'Holy Grail' across which the success or failure of any cohesive practical provision of treatment teaching and management will be determined.

Once again it is clear that Government support is key to integration across education and other departments (such as health and social services).

Another factor in play of course is the Disability and Discrimination Act part 4, which to some extent provides parents in particular with another legal tool to challenge schools regarding provision for their children. Still largely misunderstood, this document is completely applicable to students with ADHD, and to date over 50% of parents have listed complaints with the department due to issues relating to learning difficulties including ADHD.

The question however is where as a priority does ADHD lie on the SEN agenda? Despite the DfES claim that a number of projects on the subject have been funded to date and are listed

on the national research register, the suspicion is that the priority remains low.

The reasons for this are not clear, in spite of various indicators of widespread acceptance of the ADHD issue. Despite the former Education Secretary Charles Clarke claiming a major drive in trying to improve learning behaviour and discipline in schools, ADHD continues to drift as a term, regardless of the numbers of children in the UK with this disorder.

**SEN SUPPORT FOR A CHILD WITH ADHD IN AN INCLUSIVE SCHOOL**

In theory, the answer to this question is very simple but in practice it is far more difficult, mainly because, despite the recent battle cry stating: 'All teachers are teachers of pupils with special educational needs. Teaching such pupils is therefore a whole school responsibility requiring a whole-school response' (Code of Practice 2001), teachers neither have the training, nor do schools have the structures, to support the successful inclusion of many children with SEN/ADHD.

So in reality how is this to happen? Well, in practice the days of the lone SENCO fighting for students with learning difficulties are gone.

Government policy says, 'SEN should be a whole school driven issue from the top down with the Head teacher and SMT fully supporting practices drawing in those teachers who do see SEN as their responsibility.' In truth however, inclusion is a process, not a policy, and it will take time, support and above all a willingness to make it happen.

I have often quoted the phrase that management of ADHD = SFR with the terms Structure and Flexibility being supported by Relationships as the core principles for successful management of children with ADHD. The overriding message is that you will really want to work with these children to provide a structured learning environment, with differentiated work to address their learning weaknesses and adaptations to fit their learning style.

Within this term the letter R is often mistaken for Ritalin and of course medication in terms of ADHD teaching and management can have a major role to play. ADHD is a medical diagnosis and it therefore may require a medical strategy or option to complement (being the key word) the other principles of SFR.

Overall, a school needs a special educational needs department that has an understanding of ADHD. In addition to this, a calm, encouraging and consistent approach, with a well-structured routine, clear rules and standards of work in school and for homework are beneficial for a child with ADHD.

Teachers at ease talking to parents and not called away to other duties during the school day and active participation throughout the lesson are also important. Methods of grouping or screening children that allow them to learn most effectively can help a child feel comfortable in an environment suited to his needs.

Strategies for a child with ADHD must be individualised and involve both the whole school approach and strategies for the specific child. Persistent difficulties, despite the implementation of reasonable strategies, suggest the need for a

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medical review. It must be remembered that the concurrent use of medication must not be seen as a threat or criticism of teaching strategies, but as a necessary adjunct. In reality, the most effective teaching of a child with ADHD arises from taking an open-minded view to using another option or adaptive approach to the teaching and management.

Reasons for medication being effective can be wide and varied and be related to the severity of the ADHD symptoms, the culture of the specific school/organisation or even the expectations of those persons responsible for the child. Medication within the SFR term fits into the Flexibility section. Teachers use strategies to get the job done and there are benefits for the child if personal attitudes are left to one side. In the words of Charles Clarke, discussing behaviour, *'I am committed to using every tool in the toolbox to get the job done'*: medication is one of those tools.

### DEALING WITH THE EDUCATION SYSTEM WHEN YOUR CHILD HAS ADHD

There are no physical tests for ADHD and therefore it can only be identified through behaviours, which may be occurring to a much greater degree than the norm. The three main features consistent with the disorder are moderate to severe inattention, hyperactivity and impulsiveness with associated oppositional and sometimes more extreme anti-social behaviours.

ADHD impacts on every aspect of a child's life, home and school and therefore it is important for the education system to take an effective role in the management of ADHD pupils. However a gap exists between the expectation of the parent in this area and what the educational system provides for this group.

There is no doubt that parents dealing with the educational system regarding SEN generally and ADHD in particular often have very negative experiences. In practice, parents often face a lack of understanding by teachers and are confronted with confusing and lengthy processes to obtain support through school action plans, statementing etc. This lack of understanding by teachers also extends to health care professionals and there is a general feeling of being in the dark and having to cope without the support and information that parents feel they require.

One particular family's story is unfortunately a common theme. Their Grandson was diagnosed with ADHD at the age of 9 years and is currently 15 years old. Problems existed for their child whilst at primary school but in the relatively small environment of 200 they were easily monitored. However once he began attending secondary school problems began and *'he became increasingly disruptive when changes in routine occurred around the SATS exams time and also in the evenings when his medication had worn off'*. He and his family then faced years of fighting the system to ensure that he received the education he deserved.

His family have been extremely disappointed with the education system concluding that *'Our impression is that the LEA has not met its education obligations and has tactically stalled over the years until our grandson has reached an age of 15 which is too late to meet his needs at this stage'*. 04/03/03

Overall the main theme is parents want their children to stay

within mainstream schools if at all possible but realise that unfortunately teachers are too busy/pressurised to cope. Awareness of ADHD remains low and generally in most cases provision only takes place after the perseverance and stubbornness of themselves.

### WHAT CAN PARENTS DO?

With regards to the school it is advisable for parents to try to develop a partnership with the school in order to make the lines of communication clear between all parties, as many of the issues and incidents that occur both at home and school can (but not always) impact in both areas.

It is important to develop a relationship early in order to prevent potential antagonistic attitudes between school and home with the child with ADHD stuck in the middle of the situation.

As it is likely that a child with ADHD will have an IEP in either an Action Plan or Action Plan plus stage on the school special needs register the parent should have regular contact with both the child's form tutor and the school SENCO. They should encourage and review short and long term academic and socialisation targets by a weekly report and at least a bi-weekly phone conference.

Although the specifics of IEPs will differ dependent on the needs of individual children, a strong IEP should address targets in both attainment and self esteem and have criteria for monitoring and assessment and realistic timescales for an overall review.

In terms of the home itself, having a child with ADHD can place a great deal of pressure on family relationships for both parents and siblings. This issue is compounded by the fact that ADHD is a condition with a strong hereditary link. If a family has one ADHD child, there is a 30–40% chance that another brother/sister will also have the condition and more than half of all parents with ADHD will have a child with ADHD (ADDISS Factsheet).

There are numerous modification strategies, which parents can use to help the ADHD child, and these methods do not necessarily require psychiatric inputs. However it is essential that parents look after themselves particularly as they need to give consistent discipline and a structured lifestyle to their children and to remember the WHEN-THEN principle as in:

'WHEN you have put your toys away,

THEN you can have a story'.

### PARENT TRAINING PROGRAMS

It is particularly important to support parents of children with ADHD and educating parents about the disorder is central to this. Parents should be instructed in basic concepts, assessment procedures and the different treatment options which are available for their child. Training should also encompass principles of effective child management, which will include attending skills, home token systems, punishment techniques, anticipating problems, communicating skills, problem solving skills and ignoring skills. To ensure that parents have on-going support, group therapy and social support should be made available.



WHAT ARE THE ESSENTIAL ELEMENTS OF PARENTAL TRAINING?

- Family education about ADHD
- Maximising the impact of medication
- Problem solving skills
- Communication skills
- Restoration of parental control
- Reframing/Restructuring
- Tension reduction
- Individual psychotherapy where indicated

THE IDEAL TEACHER (AND PARENT) FOR A CHILD WITH ADHD

- Thoroughly knowledgeable about ADHD and accepts legitimacy of the Disorder
- Tough as nails about rules but always calm and positive
- Ingenious about modifying teaching strategies and materials in order to match child's learning style
- Tailors academic material to suit child's abilities and skills
- Creates assignments that require as much activity on child's part as possible
- Mixes high and low interest tasks in tune with child's learning style
- Deals with homework in a pragmatic way
- Knows when to back off when STUDENT's level of frustration begins to peak
- Knows when to back off when TEACHER'S (PARENT'S) level of frustration begins to peak
- Speaks clearly in brief, understandable sentences
- Looks the child straight in the eye when communicating
- Runs an absolutely predictable and organised classroom
- Controls the classroom without being controlling

- Provides immediate and consistent feedback regarding behaviour
- Develops a private signal system with child to gently notify him when he/she's off task or acting inappropriately
- Maintains close proximity without being intrusive
- Ignores minor disruptions. Knows how to choose battles
- Has no problem acting as an auxiliary organiser
- Maintains an interest in the child as a person even after a trying day
- Is willing to call and meet with parents
- Has a sense of humour you wouldn't believe.

To end with a success story: for Mr Bailey and his 10 year old son with ADHD called Freddy, the issue was that both of them were highly charged individuals who would not back down in the course of an argument. Each wanted the final word. When Freddy got the final word, this would send his father into a frenzy as he felt he should have this as his right as the 'Head of the Family'. It was suggested to Mr Bailey that perhaps he could pay Freddy 50p so that he the father could have the last word. Two weeks later the Father called to say thank you. Things at home were calmer and he and Freddy were getting along fine. He said the sight of Freddy biting his lip in order to get the 50p was worth every penny and he would have paid £5 for the outcome ...I told him not to tell Freddy.

*Fintan J O'Regan*

*Fintan J O'Regan was formerly the Headteacher of the Centre Academy regarded as the only specialist school in the UK for the teaching and Management of ADHD. He now works as an SEN advisor for Surrey LEA and a teacher trainer on ADHD and related Behavioural Management issues. He can be contacted at Fjoregan@aol.com*

*For more information on ADHD contact ADDISS, the National Attention Deficit Disorder Information and Support Service on 020 8906 9068 or log onto their website on www.addiss.co.uk.*

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*Dyslexia Review*





## This child is not available for learning!

FIONA HOVER

The anger that pumped out of Charlie Simpson could have fuelled the QE2 on a world cruise. A chair flew across the room. His teacher was at his wit's end. 'Out!' he bellowed.

Charlie was like a caged animal prowling the corridors ready to pounce on anything that moved and plenty that didn't. Fortunately, the first person to meet Charlie was the school's Learning Mentor.

'You'll be in trouble if you are caught in the corridor again this week, Charlie,' she said. 'You had better come into my room and calm down.' Mrs Mills opened the door of her room and Charlie flung himself onto a chair. After a glass of water and a great deal of deep breathing by both Charlie and Mrs Mills, she gently enquired what had gone wrong.

Charlie was off again swearing and cursing about the teacher and most of the students in the class. Only with some difficulty did Mrs Mills glean that the root of the problem had been Charlie's inability to do the task in hand and his peers' lack of support. 'I'm rubbish,' said Charlie. 'I can't do nuffin!'

'Can you push this button, Charlie Simpson?' asked Mrs Mills. Charlie did and whilst the computer cranked into life Mrs Mills wrote:

*Charlie Simpson can switch on a computer.*

'Can you open Power Point for me?'

*Charlie Simpson can open Power Point from the start menu.*

By the time the bell went for the next lesson Charlie had produced a 4 page presentation on the events that had led up to his outburst in class and Mrs Mills had nearly a page of things Charlie Simpson could do. She also had a fair idea of the things Charlie couldn't do. Charlie couldn't read. Charlie found it difficult to remember more than one instruction at a time. Charlie had difficulty finding the right word. Charlie found speaking without expletives almost impossible.

Charlie was always in trouble. He knew he wasn't coping in the classroom and consequently found ways to leave. Sometimes he would ask to go to the toilet. On other occasions he would pick a fight or scrape his chair or throw things or call out, until the teacher couldn't stand it any more. He knew all the teachers' weaknesses and could press all the right buttons to get himself excluded. Because he was never in lessons he didn't learn anything, except perhaps the diluted version of what his peers had picked up. Then Charlie discovered computers.

Computers did things at Charlie's command. They didn't get cross when he didn't understand, although they did crash if he 'didn't treat 'em right'. A computer would wait until he

found the right word but would challenge his speed in a game. When he was cross the computer didn't mind. It just wouldn't work if he pressed the wrong keys. Charlie may not have been able to read well but he could find his way round a computer keyboard and was a whiz with a mouse.

Gradually in the privacy of the Learning Mentor's room Charlie taught himself to read. A slow and painful process but the computer was patient as Charlie inched himself through the programme. Charlie learnt to use a text reader and with predictive text he wrote about himself; a harrowing tale of loneliness and abuse that he hid from view with a password.

He went through some specialist programmes about controlling his behaviour, but he didn't 'reckon 'em much'. He learned to make charts of the sequence of events that led to trouble. He began to identify the moments when he could have made a better choice and what the outcomes might have been. Charlie listened when the computer 'talked' to him. He knew it would say it again if he asked. He learned how to use the record feature to put in a word when he really couldn't figure it out.

Gradually Charlie began to be less angry and more valued as he began to understand his behaviour and began to help others around him to control theirs. Finally, after two and a half years, Charlie Simpson was available for learning!

Fiona Hover

*Fiona Hover is Professional Assistant to Educational Development at the Dyslexia Institute.*

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## BOOK REVIEWS

### DYSLEXIA: A TEENAGER'S GUIDE

By Dr Sylvia Moody

Publisher: Vermillion

ISBN: 009190001-B

Price: £7.99

The majority of books on Dyslexia (or Dyspraxia for that matter) are written for parents to help spot the difficulty in their child and for adults to help them in their daily routine. However *DYSLEXIA: A TEENAGER'S GUIDE* is written to help teenagers (as the title suggests) through the stresses of senior school life. The book is split into three sections: SECTION A: WHAT IS DYSLEXIA?, SECTION B: IMPROVING SKILLS and SECTION C: FURTHER HELP AND ADVICE.

Section A introduces dyslexia and dyspraxia both to someone unassessed and someone (as in my case) that has known that they suffer from these learning problems for many years but shows what difficulties and strengths many dyslexics and dyspraxics have but may not realise that it is connected to their problem. It also talks about what to expect in an assessment (if you have not been tested yet) and how to tell people about your problems.

Section B is aimed at giving advice once you have been tested. It has a chapter on each of the basic difficulties of dyslexia i.e. Reading, Writing, Spelling, Memory and Perception and how to cope with Organising Study, Examinations and Emotions and goes onto Beyond School. The final section simply suggests recommended Useful Equipment, Useful Addresses and Further Reading.

When I first started looking at this book I was really struck by the way it was laid out. Dr Sylvia Moody (the writer) had really thought about the complexities of a dyslexic mind; not only in what she actually puts on paper but how she lays it out on the page. If there is a full page of text she includes bullet points and words in bold. In the majority of books I read it is always rather difficult to get much head way on a bus journey to school. However, this book has a clear font and so you can easily read two chapters on a bus journey (and absorb it!). This book is written in a clear and unpatronising style and I thoroughly recommend it any dyslexic teenager.

*Constance Blackett-Ord Aged 16*

*Constance Blackett-Ord is a student at the Dyslexia Institute in London*

### DYSLEXIA, READING AND THE BRAIN

By Alan A Beaton

Publisher: Psychology Press

ISBN: 1-84169-506-8

Price: £49.95

*Dyslexia, Reading and the Brain* is a must-read for academics and non-academics. Beaton successfully attempts to address a

broad area of cognitive and biological aspects in relation to dyslexia and reading.

The book is comprised of two parts:

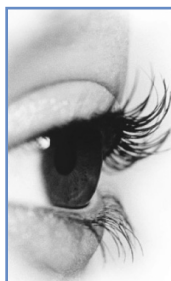
Part one discusses in detail the complex definition of dyslexia, theories of reading, phonological awareness and phonological deficit theories, language and dyslexia, and the role of auditory perception and temporal processing deficit hypotheses.

Part two gives an in-depth documented account of the biological aspects of dyslexia, discussing the role of genetics as well as providing controversial alternative theories of dyslexia, e.g. the hormonal theories of dyslexia. In addition, it examines visual aspects of dyslexia. Each chapter is supported with up-to-date theories, as well as some impressive research in reading which has long been overdue.

This thought-provoking book is a good reference for those individuals who are in the field of dyslexia or those who express an interest. Beaton concludes his book by offering insightful ways of how dyslexia should be researched in the future.

*Esther Efemini*

*Esther Efemini is a Learning Support Lecturer at The Community College, London*



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ISSN 0308 6275