Dyslexia and Physical Education
(Outdoor Education, Sports, Games, Dance)

No 2.9 in the series of
Supporting Dyslexic Pupils in the Secondary Curriculum
By Moira Thomson
DYSLEXIA
AND
PHYSICAL EDUCATION
(Outdoor Education, Sports, Games, Dance)
Supporting Dyslexic Pupils in the Secondary Curriculum
by Moira Thomson

Complete set comprises 18 booklets and a CD of downloadable material
(see inside back cover for full details of CD contents)

Foreword by Dr. Gavin Reid, a senior lecturer in the Department of Educational
Studies, Moray House School of Education, University of Edinburgh. An
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more than 35 countries and has authored, co-authored and edited fifteen books
for teachers and parents.

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Religious Studies)

ALL information contained in the booklets and the CD can be downloaded free of
charge from the Dyslexia Scotland website – www.supportingdyslexicpupils.org.uk

Extra copies of individual booklets or complete sets are available from

Dyslexia Scotland, Stirling Business Centre, Wellgreen, Stirling, FK8 2DZ

Email: info@supportingdyslexicpupils.org.uk
To all my dyslexic pupils, who taught me what dyslexia really is
Acknowledgements

Dyslexia Scotland would like to thank the following for making possible the publication of this important series of books. Every secondary school in Scotland has been supplied with a copy. All material contained in the booklets and CD is downloadable free from the Dyslexia Scotland website - www.supportingdyslexicpupils.org.uk.


Thanks also to Trevor Hook, Stephen Mitchell, Yvonne Cochrane and Senga Fairgrieve for their production input and Paula O’Connell for copy-editing all 18 booklets.

Moira Thomson would like to thank Meg Houston and Maureen Brice for their ongoing support and Alasdair Andrew, Karen Reid and the other members of the Dyslexia Scotland South East Committee for supporting the venture. Thanks also to David Dodds, former collaborator and colleague at City of Edinburgh Council, who was there at the beginning and contributed throughout.

Dyslexia Scotland is the voluntary organisation representing the needs and interests of dyslexic people in Scotland.

Mission Statement
To encourage and enable dyslexic people, regardless of their age and abilities, to reach their potential in education, employment and life.

Dyslexia Helpline: 0844 800 84 84 - Monday to Friday from 10am until 4pm.

Dyslexia Scotland, Stirling Business Centre, Wellgreen, Stirling, FK8 2DZ
www.dyslexiascotland.org.uk

Registered in Scotland No. 153321
Scottish Charity No. SCO00951
FOREWORD

It is a privilege to be asked to write a foreword for this series of guides on dyslexia in the secondary school. Moira Thomson ought to be congratulated in putting together these informative and up to date guides that will both heighten the awareness of dyslexia in secondary schools and develop the knowledge and skills of teachers through the implementation of the suggestions made in the guides. Too often books and materials on dyslexia are cornered by a few, usually those who have a prior interest in the subject. Many feel it is not their concern, or they do not have the specialised experience to intervene. These guides will challenge and change that assumption. The guides are for all teachers – they contain information that will be directly relevant and directly impact on the practice of every teacher in every secondary school in the country. Not only that, the guides are up to date containing advice stemming from the most recent legislation (Education (Scotland) Act 2004: Additional Support for Learning). This makes the guides an essential resource in every school in the country.

Above all the guides provide a positive message. Dyslexia is couched in terminology that expresses what learners with dyslexia can do not what they ‘can’t do’. Any difficulties experienced by learners with dyslexia are seen as ‘barriers to learning’ which means that the onus is on supporting learners overcome these barriers and this places the responsibility firmly on the professionals working in schools. This reiterates the view that dealing with dyslexia is a whole school responsibility.

The breadth of coverage in these guides is colossal. It is highly commendable that Moira Thomson has met this immense task with true professionalism in providing clearly written and relevant guides incorporating the breadth of the curriculum. As well as including all secondary school subjects the guides also provide information on the crucial aspects of supporting students preparing for examinations, the use of information and communication technology, information for parents, details of the assessment process and the skills that underpin learning. It is important to consider the view that learners with dyslexia are first and foremost learners and therefore it is important that their learning skills are developed fully. It is too easy to place the emphasis on developing literacy skills at the expense other important aspects of learning. The guides will reinforce this crucial point that the learning skills of all students with dyslexia can be developed to a high level. I am particularly impressed with the inclusion of a section on classroom management. This again reinforces the point that managing dyslexia is a classroom concern and a learning and curriculum-focused perspective needs to be adopted. A focus on curriculum planning and acknowledging learning styles is essential if learners are to reach their potential in secondary schools.

The guides do more than provide information on dyslexia; rather they are a staff development resource and one that can enlighten and educate all teachers in secondary schools. I feel certain they will be warmly appreciated and used for that purpose. The guides will benefit school management as well as teachers and parents, but the real winners will be the students with dyslexia. It is they who will ultimately benefit and the guides will help them fulfil their potential and make learning a positive and successful school experience for all.

Dr. Gavin Reid,
Edinburgh, UK
July 2007
Dyslexia may be defined as a difficulty in processing language-based information. Short-term memory, sequencing, directionality and co-ordination may also be affected.

It is important that secondary teachers consider dyslexia in the context of their own subject. In any subject class there will be a need to make provision to meet a wide variety of strengths and additional support needs, not all linked to dyslexia, but, teaching and learning strategies that are appropriate for dyslexic pupils can be effective for all.

Dyslexia may be difficult for subject teachers to identify, but a mismatch between a pupil’s apparent ability and the quality (and quantity) of written work is often observed. Subject teachers should use the Dyslexia Indicators Checklist to confirm any suspicion of a dyslexic profile. If several indicators are ticked, referral should be made to the Support for Learning (SfL) team for further investigation.

TEACHERS’ RESPONSIBILITIES RE PUPILS WITH DYSLEXIA
Reference: Education (Scotland) Act 2004: Additional Support for Learning

It is a teacher’s responsibility to provide a suitably differentiated subject curriculum, accessible to all pupils, that provides each with the opportunity to develop and apply individual strengths. Responsibilities for meeting the additional needs of dyslexic pupils are the same as those for all pupils, and should include approaches that avoid unnecessary dependence on written text. Subject teachers may be expected to use teaching and learning strategies that include:

- Recognition of and sensitivity to the range and diversity of the learning preferences and styles of all pupils
- Selection or design of appropriate teaching and learning programmes that match the range of all pupil abilities, within the curricular framework of the school
- Awareness of the learning differences related to dyslexia that may cause difficulties within these programmes
- Understanding that, while dyslexia is not linked to ability, able dyslexic pupils may persistently underachieve because of this
- Knowledge that many dyslexic pupils use strategies such as misbehaviour or illness for coping with difficulties they do not necessarily understand themselves
- Willingness to ask for advice and support from the Support for Learning team
- Commitment to the need to reduce barriers to learning linked to the delivery of the curriculum
Dyslexia and Physical Education

- Acknowledgement of the very severe difficulties that dyslexic pupils might experience due to failure to master the early stages of literacy and numeracy

- Understanding that dyslexia is developmental in nature and that some pupils who have coped with the early stages of literacy acquisition may have difficulties with higher order skills, which do not appear until upper primary or secondary

- Acceptance that some pupils with dyslexia may require additional support within the context of their subject and to consult with colleagues and specialists to determine how best to provide this

- Taking account of the difficulties experienced by dyslexic pupils when assessing progress so that subject knowledge and ability are assessed fairly by making alternative arrangements for assessments that reflect the additional support usually provided

Dyslexic pupils constantly meet barriers to learning across the curriculum and may become discouraged very quickly due to lack of initial success in subject classes. This can result in subject teachers assuming that pupils are inattentive or lazy, when they are actually working much harder than their classmates, but with little apparent effect. For pupils with dyslexia the experience of success may be rare, if not totally absent. They may:

- Lack self-confidence
- Have a poor self image
- Fear new situations
- Confuse written and verbal instructions
- Be very disorganised
- Lack stamina
- Appear to avoid set work

For example, a dyslexic pupil may fully understand the subject teacher’s spoken introduction to a topic but be unable to follow the written instructions to complete class activities.

Some dyslexic pupils may experience motor co-ordination difficulties that will impact on their ability to participate effectively in some PE activities, especially ball games and team sports. As a result, some dyslexics may struggle with some components of a PE course while others may have significant problems in all physical activities. Research has found that many dyslexics have postural instability, poor balance and deficits in muscle tone. Some pupils with dyslexia may be unable to judge speed and distance and may lack depth perception, so they will have great difficulty taking part in fast moving team games. However, many dyslexics excel at individual sports such as athletics, fencing or swimming, and others may succeed in small teams where there is little risk of collision with others.
Strengths of dyslexic pupils in PE may include:

- Multi-sensory learning styles that are particularly suited to sporting activities;
- Multi-dimensional thinking and perception
- An acute awareness of the environment
- Originality and creativity in their approach to problem solving
- Determination to succeed
- Endurance and ability to practice the same skill over and over again, even if there is little apparent progress

READING/WRITING/COPYING

The underpinning literacy difficulties of many dyslexic pupils will impact on their learning in all areas of the curriculum, including the theory classes that may form part of some PE courses. Teachers should consult colleagues in Support for Learning to determine the most appropriate support for any classroom work required.

Barriers to learning in PE – dyslexic pupils may:

- Have very immature motor control
- Appear to be clumsy - dropping things, tripping over etc.
- Struggle to put a sequence of moves together smoothly
- Have very poor hand-eye co-ordination
- Fail to develop automaticity of movements in sequence
- Struggle to keep up with the ball in ball games
- Misinterpret rules, or try to apply the rules for one game to a different activity
- Be unable to cope with directions, often confusing left/right etc.
- Find it difficult to change direction when moving at speed
- Struggle with short-term memory, so be unable to remember a series of instructions for one moment to the next
- Have difficulty remembering what tactics/strategies they are trying to follow
- Be unable to write quickly and legibly when making notes or writing reports
- Be unable to locate information in text sources, rulebooks etc.
- Continually lose the place when consulting texts

Suggested support strategies – teachers should:

- Introduce exercises that will help develop motor control and integrate sensory information
- Provide opportunities for pupils to practice visual sequencing
- Use a games approach to developing movements in response to visual and auditory stimuli
- Use computer games and simulations to help develop sound/movement sequencing
- Arrange activities that will develop binocular co-ordination using near and distant targets
- Always demonstrate and model movements and techniques (use an ‘expert’ pupil if necessary)
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- Do not use verbal instructions alone – always combine these with demonstrations
- Repeat a series of instructions one at a time
- Highlight and use colour codes for pupils to identify their own roles in games
- Create wall displays in colour to show sports ‘dos’ and ‘don’ts’
- Teach rules in a ‘fun’ way using mnemonics, rhymes, colour coding and jingles
- Use mind maps, visual representations and colour for developing tactics and strategies of play
- Develop a sequential checklist for sports preparation
- Teach visualisation and use highlighting and/or colour coding to aid recall of sequences
- Teach memory techniques such as mnemonics to aid sequencing
- Do not expect a dyslexic pupil to be able to listen and write/perform at the same time
- Issue ‘credit cards’ of rules for reference
- Issue illustrated large print versions of rules etc so that dyslexic pupils can locate information more easily

ALTERNATIVE ARRANGEMENTS FOR PE ASSESSMENTS

SQA and other examining bodies offer a range of alternative assessment arrangements for dyslexic pupils taking examinations. These are designed to reflect the support provided for dyslexic pupils in the curriculum and to address any specific difficulties caused by the style of the examination and its impact on the opportunities for dyslexic candidates to demonstrate actual attainment. Consideration should be given to the following points:

- If assessment instructions are given orally, dyslexic pupils may need to have these repeated, often more than once
- When video-tapes are used, extra time between sections and the opportunity for questions to be repeated should be built-in
- It may be necessary for dyslexic candidates to ask for specific seating arrangements in order to take account of e.g. the need to be close to a TV screen, ambient lighting etc.
- When an internal assessment involves reading and writing, dyslexic candidates are eligible for the same linguistic support used for timed exams

The range of alternative assessment arrangements available for dyslexic candidates in timed, written exams includes:

- Linguistic support (reader, digital examination papers, scribe, transcription with correction)
- Extra time allowances
- Use of word processors with spellcheckers, specialised software and other technological aids
- Transcription without correction to remove illegibility
- Rest periods/supervised breaks when the extra time makes the exam extremely long
- Adapted question papers for candidates who experience visual distortions
ROLE MODELS FOR DYSLEXIC PUPILS

When at school, the impact of dyslexic difficulties often outweighs a pupil’s natural abilities in a subject area – which is one reason why teachers of successful individuals often express surprise – or astonishment – at their achievements after they have left formal schooling behind.

So, perhaps some of those who have already succeeded may be the best guides to promote understanding of how to create success where there is so often failure. The giftedness of some dyslexics seems to be particularly clear in fields where performance and competition are important. In these areas, achievement is measured by demonstrated success, which is often more highly valued in society than traditional academic skills and paper credentials. The following personal comments and case histories may offer new insight into dyslexia.

Muhammad Ali - world champion boxer
"As a high school student, many of my teachers labelled me DUMB... I knew who the real dummies were. I barely graduated...There was no way I was going to college- I never even thought about it. I could barely read my textbooks."

Sir Jackie Stewart, former world champion racing driver, Olympic hopeful in shooting and successful businessman thought he’ was just stupid, dumb or thick because he couldn’t read or spell like other people. His dyslexia was not diagnosed until he was 42, when he took his sons to be tested. He told testers that he didn’t know what dyslexia was, ‘... but I was sure they would be OK because I wasn’t good at school either.’ Finding out that he was dyslexic, ‘...was like I was saved from drowning. I was told the reason for my stupidity.’ Sir Jackie, parent of dyslexic children and president of Dyslexia Scotland, insists that, “Early diagnosis is the biggest and most important thing you can get to help a young person.” Like Sir Jackie, all parents of dyslexic children want their child to be able to accept that despite difficulties with reading and spelling, they have other things that they can do.

Many successful dyslexics’ total dedication to their sport and determination to succeed at something has led to the highest achievement in several sporting areas. Winner of 5 consecutive Olympic gold medals for rowing, Sir Steven Redgrave struggled at school due to his dyslexia. His difficulties in the classroom troubled him and he felt judged as lazy and stupid – he sought to bolster his self-esteem by proving himself in a boat where he was in control.

Basketball great Magic Johnson was tired of being laughed at because of his dyslexia, and he wanted to show everybody that he could do better – total motivation and practice led to his becoming one of the world’s greatest basketball players. “It’s a bad feeling, a lonely feeling. You’ve got to take whatever means are necessary to enhance your skills. Then once you’ve conquered it, once you have met the challenge, teach back and help the next guy, because that is what it is all about.”

Bruce Jenner - Olympic gold medallist for the decathlon
“A champion lives deep down inside each one of us. Find the area in your life you can excel in and dare yourself to be the best you can possibly be.” He struggled
in the classroom. It was torture for him to get up and read in front of the class, but he was able to compete with anyone in sports with his head held high. "I just barely got through school. The problem was dyslexia, at a time when there was nowhere to get help."

**Chris Boardman - cyclist, Olympic gold medallist**
I didn’t really enjoy school and couldn’t wait to leave. I was always particularly hopeless at Sports Day … all that running whilst balancing eggs on spoons”.

**Kenny Logan - Scottish rugby hero**
He was made to feel stupid at school and bluffed his way through the curriculum. He left school with a reading age of seven! He would make excuses like having hurt his hand when he had to write a cheque and used to send forms home to his mum to be completed.

The twin misfortunes of losing his hair when he was 10 years old and being dyslexic spurred **Duncan Goodhew** on to win Olympic gold for swimming – but he didn’t stop there, developing a successful business career after retiring from the sport.

**Also dyslexic…..**  
**Greg Louganis - Olympic diver**  
**Sandy Lyle – master golfer**  
**Vince McMahon - World Wrestling entertainment founder**  
**Paul Merson – soccer star**
FURTHER READING

**McKay, N** (2005): Removing Dyslexia as a Barrier to Achievement: The Dyslexia Friendly Schools Toolkit, Wakefield SEN Marketing
Of particular interest is the chart of Dyslexia Friendly Classroom Strategies on page 214.


This book examines the literature about dyslexia and co-ordination and provides a framework of support for pupils with dyslexia in physical activities, in PE lessons band in less structured environments, for example during break time when they are likely to be involved in informal games etc.

**Contents:** An overview of research
- Developing skills
- Balance
- Movement
- Coordination
- Secondary education; positive solutions


DYSLEXIA INDICATORS AT THE SECONDARY STAGE

Dyslexia is more than an isolated defect in reading or spelling. The problem may be perceptual, auditory receptive, memory-based or a processing deficit.

Subject teachers are not expected to be able to diagnose these difficulties as such, but some general indications are listed below. If several of these are observed frequently in the classroom, please tick the relevant boxes and enter details of the pupil concerned and pass to the Support for Learning team for further investigation.

Pupil Name: _________________  Class: ________________  Date: ________________

- Quality of written work does not adequately reflect the known ability of the pupil in the subject
- Good orally but very little written work is produced – many incomplete assignments
- Disappointing performance in timed tests and other assessments
- Poor presentation of work – e.g. illegibility, mixed upper and lower case, unequal spacing, copying errors, misaligned columns (especially in Maths)
- Poor organisational skills – pupil is unable to organise self or work efficiently; carries either all books or wrong ones; frequently forgets to hand in work
- Sequencing poor – pupil appears to jump from one theme to another, apparently for no reason
- Inability to memorise (especially in Maths and Modern Languages) even after repeated practice
- Inability to hold numbers in short-term memory while performing calculations
- Symbol and shape confusion (especially in Maths)
- Complains of headaches when reading; sometimes see patterns in printed text; says that words move around the page or that text is glaring at them
- Unable to carry out operations one day which were previously done adequately
- Unable to take in and carry out more than one instruction at a time
- Poor depth perception – e.g. clumsy and uncoordinated, bumps into things, difficulty judging distance, catching balls, etc.
- Poor self-image – lacking in confidence, fear of new situations – may erase large quantities of written work, which is acceptable to the teacher.

- Tires quickly and work seems to be a disproportionate return for the effort involved in producing it.

- Easily distracted – either hyperactive or daydreaming.

- **Other – please give details**

Teacher: ___________________________  Subject: ___________________________

Action requested:  

- □ details of known additional needs

- □ investigation of problem and advice re support

- □ dyslexia assessment

- □ profile of additional needs

- □ suggest strategies for meeting additional needs

- □ advice re assessment arrangements
Dyslexia Scotland has supplied every secondary school in Scotland with a free copy of this publication. All information contained in the 18 booklets and CD, including extra copies of dyslexia identification checklists, is available free to download from their website.

www.supportingdyslexicpupils.org.uk

CD CONTENTS:

Worldwide dyslexia contacts

Identification & Assessment of dyslexia
- Dyslexia checklist for subject teachers
- Classroom Observation
- Pupil Checklist for Dyslexia
- Dyslexia - self esteem issues
- Assessment Materials
- Fine Motor Assessment (writing)
- Visual Dyslexia
- Strategies to meet identified needs
- Example of a dyslexic profile
- Personal Learning Plan: Example of an information page
- Dyslexia glossary

Co-morbid conditions
- ADHD - teachers' checklist
- Visual Discomfort Meares-Irlen Syndrome
- Dyspraxia
- Dyscalculia
- Dysgraphia

Teaching & Learning
- Summary: Classroom management support strategies
- Developing Social Skills - dyslexic learners
- Dyslexia glossary of terminology
- Modern Languages Grid

Study skills
- Active Revision.
- Techniques for improving memory
- Study techniques Revision
- Accessible Curricular Materials
- Writing support using ICT
- CALL project Voice recognition - Description for schools
- Small and Portable Devices

Examinations and assessments
- SQA Guide for Candidates: Arrangements for Disability Support
- National Testing
- Use of a calculator in Maths non calculator exam papers
- Modern Foreign Languages Writing
- Glossary of Exam language
- Active Revision
- Stress reducing strategy

Resources
- ICT resources to support developing numeracy
- ICT resources to support developing literacy
- ICT and Practising Literacy Skills
- Further Reading suggestions
- Learning & Teaching Scotland - downloadable resources
- Barrington Stoke link
- Dyslexia Shop catalogue link
- iANSYST website link

Information for parents of dyslexic pupils
- Enquire parent guide
- Dyslexia Scotland Guide for Parents
- Visual processing difficulties
- Using ICT to support writing
- ICT Starting Points
- Small and Portable Devices
- Alternative Therapies
- Supporting and working with parents of dyslexic pupils
- Contributory factors dyslexia
- Homework Tips for Parents
- Meeting the teacher - parent's guide
- Information for parents - Alternative Assessment
- Arrangements
- Suggested reading list for parents

Downloadable leaflets & information
- What is dyslexia
- DfES How to Identify Dyslexia
- DfES Being Dyslexic
- DfES Tips for Secondary School
- BDA Secondary School Tips
- A framework for understanding Dyslexia - DfES
- Guidance to support pupils with dyslexia and dyscalculia - DfES
- How Can Parents Help
- Dyslexia Scotland Guide for Parents
- Enquire Parents Guide to Additional Support for Learning
- Help for Dyslexic student
- Dyslexia Indications for Adults
- Checklist for Adults
- Dyslexic adults assessments
- Guide for Teachers
- Help At Home
- Help with Reading and Spelling
- How Can Parents Help
- Help with Maths
- Hints for Homework
Supporting Dyslexic Pupils in the Secondary Curriculum is a series of booklets for secondary school teachers throughout Scotland. They are intended to help them remove the barriers to learning that are often experienced by dyslexic pupils.

The pack of 18 booklets:
- Is an authoritative resource to help teachers meet the additional needs of dyslexic pupils as described in the Scottish Executive’s Supporting Children’s Learning Code of Practice (2005)
- Provides subject teachers with advice and suggests strategies to enable them to minimise barriers to learning that dyslexic pupils might experience in the secondary curriculum and provide appropriate support
- Offers guidance for Support for Learning staff on the identification and support of dyslexia in the secondary curriculum and on advising subject colleagues
- Addresses the continuing professional development needs arising from national, local and school initiatives
- Is packed with practical information and tips for teachers on how to give dyslexic pupils the best chance of academic success
- Is supplemented with a CD crammed with practical and helpful downloadable material

Moira Thomson recently retired as Principal Teacher of Support for Learning at Broughton High School, Edinburgh, after 30+ years. She was also Development Officer for City of Edinburgh Dept of Children & Families; in-house CPD provider for City of Edinburgh Dept of Children & Families; Associate Tutor for SNAP; Associate Assessor for HMIe. Moira is an independent adjudicator for the Additional Support for Learning dispute resolution; educational consultant, providing CPD for secondary teachers; secretary of the Scottish Parliament’s Cross Party Group on Dyslexia; member of Scottish Qualifications Authority focus groups and a committee member of Dyslexia Scotland South East.

“I truly hope that all teachers will embrace this publication. If they can put into practice the guidance offered it will make a fundamental difference to the way dyslexic children are taught in school today. Young people in Scotland deserve this chance.”

Sir Jackie Stewart OBE, President of Dyslexia Scotland.

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