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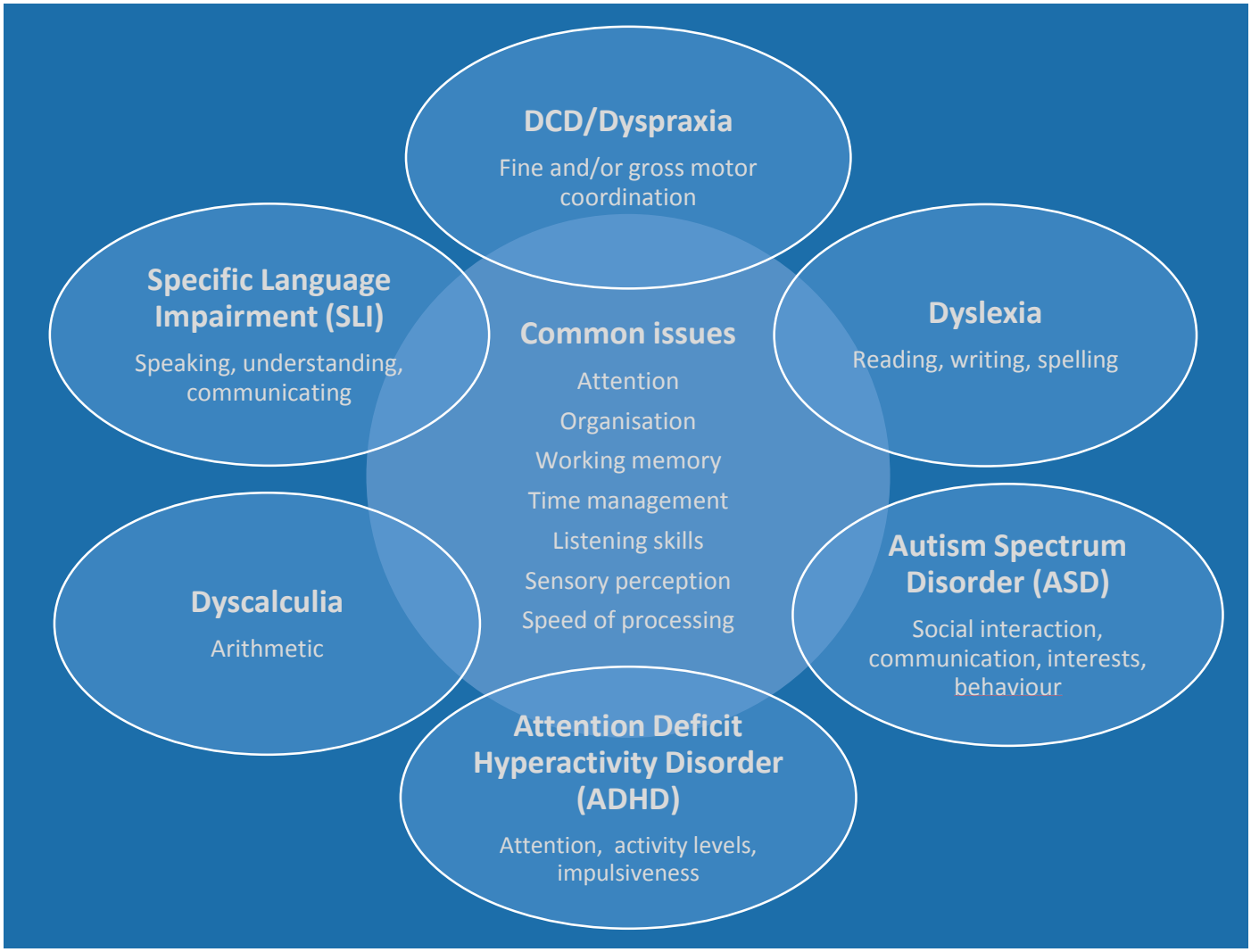
Teaching for Neurodiversity
A Guide to Specific Learning Difficulties



Working together to empower educators to cater for Special Educational Needs

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With thanks to the following individuals and organisations for their contributions to this Guide:

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Gill Dixon (Anxiety and mental health)
I CAN (Specific Language Impairment)
National Handwriting Association (Dysgraphia)
Steve Chinn (Dyscalculia)

Introduction

"I've come to a frightening conclusion that I am the decisive element in the classroom. It's my personal approach that creates the climate. It's my daily mood that makes the weather. As a teacher, I possess a tremendous power to make a child's life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or heal. In all situations, it is my response that decides whether a crisis will be escalated or de-escalated and a child humanized or dehumanized."

Haim. G. Ginnott (1993) Teacher and Child

Specific learning difficulties (SPLD) is an overarching term for a number of associated learning differences. They affect the way information is learned and processed, and can affect literacy, memory, coordination, and the manipulation of letters and numbers. These differences can appear across all ranges of ability and with varying degrees of severity or significance. They are often hidden (i.e. many pupils with SpLD will look and behave just like their peers and may even demonstrate no immediate learning differences) and a pupil may have more than one co-occurring difference. SpLD are lifelong conditions that can have a significant impact on a person's life.

This booklet contains a brief overview of the most commonly occurring specific learning difficulties. It should be kept in mind that this list is by no means exhaustive and is designed to provide a brief overview only. Further information, training and development are necessary to adequately support individuals with specific learning difficulties and to assist them in achieving their potential.

The profile of individuals with SpLD is affected by a range of factors, including the cluster of learning differences they experience, their ability, background and opportunities. Therefore, an individual should be supported in a way that not only meets the needs of their particular weaknesses, but also develops their strengths and abilities.

Focussing on a label is misleading and can be counter-productive; focussing on the specific needs, talents, desires and aspirations of the individual is likely to lead to far greater success.

Notes on Neurodiversity

'For too long, we've assumed that there is a single template for human nature, which is why we diagnose most deviations as disorders. But the reality is that there are many different kinds of minds. And that is a very good thing.'

Jonah Lehrer

Neurodiversity is a relatively new term, thought to have been coined in the 1990s by Judy Singer (an autism activist).
It was originally used by the autistic community, who were keen to move away from the medical model and dispel the belief that autism is something to be treated and cured rather than an important and valuable part of human diversity.
The idea of neurodiversity has now been embraced by many other groups, who are using the term as a means of empowerment and to promote the positive qualities possessed by those with a neurological difference. It encourages people to view neurological differences such as autism, dyslexia and dyspraxia as natural and normal variations of the human genome. Further, it encourages them to reject the culturally entrenched negativity which has typically surrounded those that live, learn and view the world differently.

To find out more about the concept of neurodiversity, readers are recommended to read Neurotribes: The Legacy of Autism and the Future of Neurodiversity by Steve Silberman (Barnes Noble, 2015).

Dyslexia

'The trouble was that she (the teacher) gave me too many instructions. By the time I got to where I needed to be I had forgotten all but the last one and that didn't make any sense on its own. So I hid.'

Emma age 11

What it is

The British Dyslexia Association (BDA) Management Board have adopted the definition of dyslexia published in 2009 from Sir Jim Rose's Report on 'Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties': It is recommended that this definition is used with the additional paragraph from BDA as shown below:

Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling.

- Characteristic features of dyslexia are difficulties with phonological awareness, verbal memory and verbal processing speed.
- Dyslexia occurs across the range of intellectual abilities.
- It is best thought of as a continuum, not a distinct category, and there are no clear cut-off points.
- Co-occurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not by themselves, markers of dyslexia.

A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds, or has responded, to well-founded intervention.

In addition to these characteristics, the BDA acknowledges the visual and auditory processing difficulties that some individuals with dyslexia can experience. It points out that dyslexic readers can show a combination of abilities and difficulties that affect the learning process.

What it means

Not all dyslexic children are affected in the same way. Some may have mild problems, whilst others will have more profound difficulties across more than one area. Difficulties can be exacerbated depending on the task and external factors. A dyslexic learner's performance is

often variable, as they can have good days and bad days. Their difficulties can include phonological, visual and memory difficulties:

- **Phonological difficulties**
  Dyslexic children with phonological difficulties can lack automaticity with sound/letter correspondence, which is needed for decoding and pronouncing words for reading, and encoding for spelling.
- **Memory difficulties**
  Dyslexic individuals often have difficulty holding information in their short-term memory and also with retrieving it from their working memory.
- **Visual difficulties**
  Dyslexic individuals can often have difficulty with tracking accurately; they may experience glare from reading black on white, or blur from certain fonts.

What to look for

In general, a learner who has a cluster of the following may be dyslexic:

- Difficulty with learning to read and/or write despite intervention;
- Slow speed of processing spoken and/or written language;
- Poor word retrieval;
- Poor concentration/ easily distracted;
- Difficulty learning the days of week and months of the year;
- Difficulty telling the time and with aspects of time, such as yesterday and tomorrow;
- Poor time keeping;
- Poor personal organisation;
- Left/right confusion;
- Employing avoidance tactics, such as sharpening a pencil or looking for books;
- Acts as the class clown.

Written Work:

- A poor standard compared with oral ability;
- Poor pencil grip;
- Poor handwriting, with reversals and badly formed letters;
- Poor presentation and disregard of the margin;
- Messy appearance with many crossings out and spellings attempted several times;
- Persistent reversal confusion, e.g. b/d, p/g, p/q, n/u, m/w;
- Transposed letters, e.g. tired for tried;
- Produces phonetic and bizarre spellings which may not be age appropriate;
- Unusual letter sequencing.

Reading:

- Slow reading progress;
- Difficulty with blending letters together;
- Difficulty with syllable division and identifying beginning, middle and end sounds;
- Difficulty with pronouncing unfamiliar words;
- Difficulty with expression;
- Lack of automaticity, especially when reading aloud;
- Unable to recognise familiar words;
- Omits words, or adds or substitutes words;
- Loses the point in stories;
- Difficulty identifying the main points;
- Difficulty with comprehension.

Strengths:

Dyslexic learners may show strengths in the following areas:

- Creativity;
- The ability to visualise things;
- Practical and problem solving skills;
- Lateral thinking skills;
- Being able to see the big picture (global thinkers) in terms of strategies and problem solving;
- Good visual-spatial awareness;
- Good verbal communication skills;
- High levels of motivation and persistence.

Routes to identification

- **Checklists:** A simple list of questions that give indicators of dyslexia.
- **Screening tests**: Commercially available tests (paper based or online) that can be administered by a non-specialist, although the tester should be trained and confident to interpret the results appropriately.
- **Qualified Specialist Teacher/Assessor Diagnostic Assessment**: The assessor should have a Level 7 Specialist qualification for diagnosing dyslexia (e.g. AMBDA). A battery of tests is conducted to assess intellectual capacity, cognitive development and levels of literacy attainment. A profile of strengths and weakness is produced in a report with recommendations.
- **Educational Psychologist Assessment**: The psychologist should be HCPC registered. They select appropriate tests, including closed tests only available to psychologists, to diagnosis any underlying difficulties and they produce a report with conclusions and recommendations.

Prevalence

Around 1 in 10 of the population are thought to be dyslexic.

For further Information

- http://www.bdadyslexia.org.uk/educator/bda-services-educators
- http://www.dyslexiaaction.org.uk/
- http://www.thedyslexia-spldtrust.org.uk
- https://www.helenarkell.org.uk/
- http://www.irlensyndrome.org/toolkits-for-parents-and-educators/

Dyspraxia/Developmental Coordination Disorder (DCD)

'When you are perching on a high stool with no back or arms, you may be so busy trying to keep your balance that you can't listen to the teacher.'

Victoria Biggs. Caged in Chaos.

What it is

Dyspraxia, otherwise known as Developmental Coordination Disorder (DCD) is a common disorder affecting fine and/or gross motor skills coordination, in both children and adults. The Dyspraxia Foundation adds to this, recognising the many non-motor difficulties that may also be experienced by people with the condition and which can have a significant impact on daily life activities. These include memory, perception and processing as well as additional problems with planning, organising and carrying out movements in the right order in everyday situations. Dyspraxia can also affect articulation and speech (Dyspraxia Foundation, 2015).
It is a lifelong condition.

What it means

Dyspraxia/DCD can affect almost every part of an individual's life and makes living and learning more challenging. Many of the skills other people take for granted or seem to just 'do' have to be taught, learned and practised; they do not come naturally. This can be difficult to understand and dyspraxic learners are often frustrated if the issues that they are experiencing are not recognised and responded to appropriately. Dyspraxic individuals find it difficult to copy movements demonstrated by someone else, and they may appear inefficient or awkward in the way they carry out activities/tasks. They have an inconsistent learning performance and weak perceptuo-motor skills.
They benefit from support and encouragement in class and other environments, which will allow them to feel more comfortable and more likely to engage, whilst keeping their self-esteem afloat.
Dyspraxia/DCD affects each individual differently, ranging from mild to severe. Many learners fall somewhere between the two extremes and are dependent on appropriate support in all environments to reach their potential. Teachers should respond to the predominant need that the learner is exhibiting at any time (these may change with subject area and a learner's age). Responding to need is always more preferable to responding to diagnosis.
Learners will present with a cluster of differences as seen in the Combined SpLD Checklist. Most commonly these will include:

- Delays in reaching milestones - some never crawl;
- Challenges with handwriting;
- Poor posture/hypermobility;
- Poor ball skills (throwing and kicking);
- Challenges using equipment/utensils, e.g. scissors, rulers, cutlery;
- Challenges dressing and undressing;
- Challenges with, or awkward, running, jumping, skipping;
- Poor stamina;
- Difficulty remembering instructions;
- Challenges with personal organisation;
- Problems learning to ride a bike;
- Require more time to process and act upon information.

The structure of secondary and further education may prove too difficult for the learner and their struggles may become more evident as a result. If needs are not met they may become disaffected and exhibit challenging behaviour.

What to look for

- Challenges with physical activities such as in P.E., especially activities that involve eye-hand and eye-foot co-ordination (i.e. ball skills), running, hopping, jumping, climbing, skipping, learning to ride a bicycle, using equipment and working as a team.
- Poor posture, body awareness and awkward, effortful movements, hypermobility.
- Poor short term visual and verbal memory - copying from the board, dictation, following instructions.
- Handwriting challenges both with style and speed - frequently children have an awkward pen grip.
- Challenges organising themselves and equipment.
- Difficulty with activities which involve well developed sequencing ability.
- Problems with awareness of time, pupils need constant reminders.
- Sensory issues e.g. light, sound and heat intensity.
- Takes longer to process information.
- Extremes of emotions.
- Lack of awareness of potential danger, particularly relevant to practical and science subjects.
- Problems with forming friendships (later in primary and in secondary school).
- Immature behaviour.
- Poor personal hygiene/self-awareness.

Strengths:

- Tenacious;
- Creative;
- Empathetic;
- Kind;
- Polite;
- Keen to please;
- Sensitive;
- Often good at drama/singing/creative activities.

Prevalence

At least 5% of the population in varying degrees. It is probable that there is at least one child with Dyspraxia/DCD in every classroom who will reauire access to a specific treatment programme. Dyspraxia/DCD can present as a unique condition but often co-exists with other SpLD.

Routes to identification

Medical diagnosis via a GP with referral to a Paediatrician & Occupational Therapist (OT) and/or Physiotherapist (PT).
A cognitive assessment by an educational psychologist or specialist teacher may highlight working memory and speed of processing weaknesses.

For further Information

- http://www.dyspraxiafoundation.org.uk
- http://www.movementmattersuk.org

Dyspraxia can also affect speech and language (Developmental verbal dyspraxia).

Developmental Verbal Dyspraxia (DVD)

'It is no good just explaining something. I have to **feel** the words.'

Joe. A young man with verbal dyspraxia.

What it is

Developmental verbal dyspraxia is a rare condition which refers to difficulties in making and coordinating the precise articulatory movements required in the production of clear speech. Children with DVD find it challenging to make speech sounds correctly and to join sounds together in words and sentences.
Oral dyspraxia, on the other hand, refers to the challenges in coordinating the movements of the vocal tract (larynx, lips, tongue, palate) when not producing speech. Children with oral dyspraxia have challenges carrying out oral motor tasks such as blowing and licking. It would seem logical to think that if a child has verbal dyspraxia they must have oral dyspraxia too, but research suggests otherwise. Although most professionals now distinguish between the two, occasionally the terms are used interchangeably, which can be confusing.
Some children with verbal dyspraxia will also have an element of motor dyspraxia.
Early identification is crucial to success. These children need a high level of specialist speech and language therapy over a number of years, and in some cases other professional input. They may also exhibit differences with reading, spelling and handwriting, particularly if their speech difficulties persist beyond the age of 5 ½ years.

Routes to identification

This is a diagnosis made by a speech and language therapist (SLT) and a teacher can refer directly to this specialist. A health visitor may well be the first person to recognise differences with SLCN (Speech, Language and Communication Needs). Otherwise, a GP should be consulted and a referral to a SLT (Speech and Language Therapist) should be made.

For further information

- http://www.afasic.org.uk
- http://www.ican.org.uk
- https://www.rcslt.org Policy Statement on Developmental Verbal Dyspraxia, published 2011.
- http://www.dyspraxiafoundation.org.uk

Dysgraphia

‘It’s like my hand just won’t do what my brain is telling it to. Like it’s lost a connection.’

Amy. Age 12.

What it is

The recognition and diagnosis of dysgraphia is a rather contentious issue. Use of the term is increasingly common, with some suggestion that dysgraphia belongs to the same family of developmental disorders as dyspraxia and dyslexia, although it is not listed as a specific learning difficulty in the SEND Code of Practice. Some people consider that dysgraphia goes hand in hand with dyspraxia; however, because at the current time there is not a recognised list of agreed core symptoms/indicators, the Dyspraxia Foundation prefers to use the term 'handwriting difficulties'.

What it means

Handwriting difficulties are more than simply 'untidy' writing; they can affect the ability to write legibly, fluently, comfortably and effortlessly. They can limit people's ability to reach their potential as they may struggle to express their thoughts on paper or may avoid writing altogether.
According to Angela Webb, the Chair of the National Handwriting Association:
"In terms of a diagnosis and use of a term to label a certain condition, we go by the Diagnostic and Statistical Manual - 5th edition (DSM V). In order for a diagnosis to be given, there has first to be a standardised way of measuring the performance with set and agreed cut-off points. At present, there is no consensus here. Although the term 'dysgraphia' appeared in DSM IV, it was described as "a generalised difficulty with written expression" and did not specify the three main types of possible handwriting deficiency: orthographic, motor, or perceptual. Not surprisingly, given the range of components which might cause a problem, the term dysgraphia does not appear in DSM V, despite its frequent use in the US literature.’
It is sometimes believed that all children with dyspraxia/DCD have dysgraphia, but this is not the case. Although a common feature of dyspraxia/DCD is difficulty with handwriting, some diagnosed children can produce tidy and legible handwriting (although this is usually at the expense of quantity) and others may produce writing which is fast, though poorly controlled. Conversely, poor handwriting can exist independent of dyspraxia/DCD, particularly if the difficulties are not motor in origin, or if poor motor control results from a different aetiology, such as impulsivity. Poor handwriting is also frequently reported in

children who meet the criteria for other developmental disorders, such as ADHD, Dyslexia and mild spectrum Autism.
Handwriting is a complex skill requiring a blend of motor, perceptual and orthographic skills. Challenges in handwriting can be caused by weakness in one or all of these areas so meaningful interventions need to take into consideration the root of the challenge being experienced. For example, an appropriate motor programme may address and strengthen some of the weaknesses being experienced but may not impact on the non-motor weaknesses.
The absence of clarity in terms can cause confusion for families seeking a diagnosis (or indeed those who have been given the diagnosis without advice as to its impact). Currently, it seems reasonable to stick with the DSM-V and say that until we have consensus and clear diagnostic tools to measure the type and severity of the condition, the term 'dysgraphia' is meaningless. Therefore, it should not be used in the way that other developmental disorders' labels are used.
The National Handwriting Association encourages the use of the term 'an impairment in written expression' under the category of “specific learning disorder” (DSM V) or 'a difficulty with orthographic integration (i.e. handwriting)'.

Routes to identification

Because of the lack of consensus, the National Handwriting Association considers the diagnosis of dysgraphia to be unsound. However, it is recognised that many people experience handwriting difficulties. Identification of such difficulties has to be through an educational/clinical psychologist, or an SpLD assessor in the UK, and the exact nature of the difficulty (e. g. motor, orthographic, perceptual) should be stated. Despite it being a relatively common condition, it is sometimes hard to find a person who feels confident to assess it.

For further information

- http://www.nha-handwriting.org.uk
- https://www.patoss-dyslexia.org.uk

Specific Language impairment (SLI)

'Sometimes it's like having tape on my mouth. By the time I have worked out how to say something it is no longer relevant.'

Josh. Age 13

What it is

Specific Language Impairment (SLI) is a term used to describe difficulties with learning and using language. There is a lot of debate about the terminology associated with SLI; you may hear the terms 'language disorder' or 'language impairment'. Children are described as having SLI when they struggle to understand and use language to communicate and learn. Children with SLI have no other condition; their difficulties are specifically to do with learning to understand and use language. Children with SLI usually struggle at school despite the fact that, in lots of ways, they are as clever as their classmates. This is because so much learning depends on being able to understand and use language. Children with SLI won't just 'pick up' language; they will need to be taught language skills in a specific way. They will need the right support in order to reach their full potential. This support will be from a speech and language therapist along with other specialists, such as a language advisory teacher. Without the right support, SLI may cause lifelong difficulties. The support a child needs will depend on the type of difficulties they have, the severity of these difficulties, and the types of provision available.

What it means

In many ways, children with this difficulty are as able as many other children but the inability to put their thoughts into words (expressive language) and understand what is said to them (receptive language) is pronounced and is their main area of difficulty. These skills are essential for reading, learning in school and other environments, and for surviving in the social world. Speech and language allows children to express what they feel, and to control and regulate their emotions, so early intervention is essential. Without this, the consequences can be devastating for the child. Children can find extremely convincing strategies to make it appear that they are following what is being said or is happening. No two children are the same but they may display some or all of the following features:

- talks in sentences but is difficult to understand;
- can't follow long instructions;
- listens but seems unable to understand;

- has difficulty remembering the words they want to say;
- finds it hard to join in, keep up with conversations, or follow what is going on in the playground;
- they have difficulty expressing themselves even though they have ideas.

Prevalence

Studies have shown that in 5 year olds, SLI affects about 2 children in every classroom (about 7%), and that it is more common in boys than girls.

Routes to identification

Recent discussion has centred on the importance of having a range of different types of information to aid identification: formal assessment, informal assessment, observation, and classroom behaviour checklists. A speech and language therapist would carry out this range of assessments in order to profile difficulties.
Checklists are also available which school or early years' staff can use in order to identify the need for further investigation.
Early recognition is essential and parents, early years practitioners, or teachers can refer directly to an SLT (Speech and Language Therapist). Parental consent must always be obtained before a referral is made.

For further Information

- http://www.talkingpoint.org.uk/
- https://www.thecommunicationtrust.org.uk/
- http://www.afasic.org.uk/
- http://www.ican.org.uk/

You can find out more information about SLI in "The SLI Handbook" available from I CAN's online shop (icancharity.org.uk/resources/sli-handbook).

A Note on Speech, Language and Communication Needs (SLCN)

1.2 million children in the UK struggle to communicate (Law et al., (2000). A very significant proportion of language issues can be long-term and persistent – in other words children and young people won't 'grow out of it' (Stothard et al., 1998).

10% of all children have long term, persistent SCLN. This means 2 to 3 children in every classroom have a significant communication difficulty.

This 10% is divided into:

- children who have SLCN as a result of another condition such as autism or a hearing impairment;
- children who have SLCN as their primary condition - 7% of children and young people have SLCN as their main or primary condition – this is known as a Specific Language Impairment (SLI) (Tomblin et al., 1997; Lindsay et al., 2008).

A further group of children have SLCN associated with social deprivation. These children have poor or immature language and have the potential to catch up with their peers. Approximately 50% of children, particularly in areas of social deprivation, are starting school with language skills below the expected level for their age (Law et al., 2011).

Dyscalculia

'I find it so hard. Numbers terrify me so I spend most of the lesson just keeping my head down and hoping the teacher won't notice me.'

Jill. Age 12.

What it is

The word dyscalculia is made up of "dys" = difficulty, and calculus = counting stone. Thus, dyscalculia refers to a difficulty with arithmetic. It should be noted that there is, currently, far less research in this area than for other SpLD. Therefore, agreed definitions of dyscalculia are more difficult to find.

The DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, 4th ed., American Psychiatric Association, 2013) recommends a diagnosis of developmental dyscalculia when *"mathematical ability, as measured by individually administered standardized tests, is substantially below that expected given the person's chronological age, measured intelligence and age-appropriate education."*

What it means

In general, we would expect to see:

- problems with counting from a given point;
- confusion with number direction (92 or 29);
- challenge remembering how numbers are written;
- challenge understanding mathematical symbols;
- challenges with the concept of space and/or direction;
- takes a long time to complete mathematical tasks;
- problems with estimating;
- problems with the planning of activities;
- poor memory for basic maths facts;
- high levels of debilitating anxiety related to maths;
- problems with orientation/direction;
- mixing up similar looking numbers;
- a poor understanding of place value and its use in calculations;
- problems remembering shapes;
- problems counting backwards;
- poor concept of time and reading analogue clocks/watches;
- inability to subitise.

People usually think of challenges with maths in terms of learning in the classroom; however, if an individual has dyscalculia the ramifications of this extend across many other significant areas involved in daily living. These include money and budgeting, time keeping, organisation, and understanding weight and measurement. This can have a profound influence on job opportunity and retention.

Prevalence

Dyscalculia is thought to affect between 3-6% of the population to varying degrees (Price and Ansari, 2013).
This journal is available online at:
http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1112&context=numeracy)

Routes to identification

Checklists: A simple list of questions that give an indication of dyscalculia.
Screening: Using a commercially available tool that can be administered by a non-specialist although training is recommended.
Specialist Teacher Assessment: Usually uses a variety of tools to produce a picture of strengths and weaknesses, a more detailed report where the focus is on support strategies.
Educational Psychologist assessment: Uses a variety of tests (often closed ones) looking at how an individual processes information to build up a picture of strengths and weaknesses.

For further Information

http://www.bdadyslexia.org.uk/dyslexic/dyscalculia

Autism Spectrum Disorder (ASD)

'We're usually very visual learners with poor short term memory, so we'll forget much of what you tell us almost immediately unless we read it or write it down, are shown something in the format of picture/graphics/video, or can relate it quickly to some other long term memory we have.'

Pixie. An autistic teenager.

What it is

Autism is a life-long developmental disability affecting social and communication skills and the way in which people experience the world around them. It is not classified as a specific learning difficulty.

What it means

Autism can be disabling and debilitating if it is not accepted and supported appropriately. It is a spectrum disorder; this means that an individual may exhibit a wide range of issues. Furthermore, these issues can vary widely from one individual to another. Challenges may also vary for an individual person on a daily basis, meaning they may be more or less sensitive to particular things on different days.

Individuals have challenges with:
Social Communication: People with autism spectrum disorders have challenges with verbal and non-verbal communication; for example, they may have difficulty interpreting the meaning of gestures, facial expressions, or intonation and tone of voice. People with autism often understand the meaning behind these areas of communication but can struggle with how they vary according to context. For example, a raised voice can indicate anger or excitement and people with autism may find it difficult to interpret which of these emotions is being conveyed. They can have a wide and extensive vocabulary but may use language that is overly formal or literal in meaning.
Social Interaction: Children and adults with autistic spectrum disorders have challenges with social relationships. They may, for example, appear aloof and indifferent to other people. Due to challenges in reading facial expressions and body language, people with autism may engage in long monologues or interrupt conversations in a way that can seem inappropriate.
Imagination: There is a weakness in the development of play and imagination; for example, autistic children do not develop creative "let's pretend" play in the way that other children do. They have a limited range of imaginative activities, possibly copied and pursued rigidly

and repetitively. Issues with social imagination mean that people with autism often find it challenging to visualise what is coming next. This can lead to a reliance on structure and routine or raised levels of anxiety when plans change unexpectedly.
Sensory needs: People with autism can be over or under sensitive to all 7 senses (touch, taste, sight, sound, smell, vestibular and proprioception.) Also, their ability to process these senses is not static and can change depending on levels of stress. This can mean that people on the autism spectrum require occupational therapy adjustments.

Positive features:

- honesty;
- live in the moment;
- rarely judge others;
- are passionate;
- have terrific memories;
- not tied to social expectations;

Prevalence

1 in 100 people are thought to be affected in the UK.

Asperger Syndrome (AS)

The most recent editions of the DSM and ICD diagnostic manuals do not include Asperger Syndrome as a separate diagnosis; individuals presenting with these characteristics will now be given a diagnosis of ASD. However, many students currently have a diagnosis of Asperger Syndrome. People with AS do not usually have the accompanying learning disabilities associated with autism, and their language skills are highly developed. However, they still have challenges understanding language and communication.

Routes to identification

GP and referral to a paediatrician and usually a multi-disciplinary team of specialists.

For further information

- http://www.autism.org.uk
- http://www.autismeducationtrust.org.uk

Attention Deficit Hyperactivity Disorder (ADHD)

'It's like there is three of me, all wanting to do different things at the same time.'

Adam. Age 10.

What it is

ADHD is a lifelong condition characterised by inattentiveness, hyperactivity and impulsivity. People with ADHD tend to find it difficult to maintain focus and are hyperactive (always on the go). They may exhibit unwanted or inappropriate behaviour, seem inattentive, and act on impulse. In order to be identified as ADHD, the behaviours should be present in at least two environments (e.g. home and school) and should have been present before the age of 12 years.
ADHD can exist in isolation but is commonly seen co-occurring with one or more SpLD.
There are three presentations of ADHD:

- inattentive presentation (sometimes referred to as ADD);
- hyperactive-impulsive presentation;
- combined presentation, which is the most severe.

In terms of gender and ADHD, most research is consistent that there are more boys than girls with ADHD Hyperactive-Impulsive presentation but there are more girls than boys with ADHD Inattentive presentation.

This is an important issue as it is easier to spot hyperactive and impulsive symptoms and there is a lot of evidence to support that girls with ADHD Inattentive type are missed, especially during the primary school years. This can have serious long term consequences in terms of their learning, behaviour and self-esteem later in life.

This is one of the major reasons why the age on onset was raised from 7 to 12 in the recent DSM-V in terms of identification of symptoms.

What it means

Children can display behavioural differences if their needs are not understood. This may lead to social exclusion.

Inattentiveness:

- having a short attention span and being easily distracted;
- making careless mistakes;
- appearing to be unable to listen to or carry out instructions;

- constantly changing activity or task;
- issues with organisation.

Hyperactivity and impulsiveness:

- being unable to sit still, especially in calm or quiet surroundings;
- constantly fidgeting;
- lack of concentration;
- excessive physical movement;
- constant chattering;
- butting in/interrupting conversation/not able to take turns;
- acting impulsively;
- little or no sense of danger i.e. consistent risk taking behaviour.

Positive features:

- engaging/charismatic personality;
- adventurous;
- creative;
- lots of interests;
- resourceful;
- willing to explore.

Prevalence

It is estimated that between 1 and 4% of children will have the disorder (1% will meet the diagnostic criteria for a severe form).

Routes to identification

Diagnosis should be a medical one. A child should be seen by a GP in the first instance and may be referred to a paediatrician, a clinical psychologist or psychiatrist.

For further Information

- http://www.adhdfoundation.org.uk/
- http://www.addiss.co.uk/
- http://www.adders.org/

Anxiety and mental health

‘When people experience sensory overload or anxiety their behaviour may seem a little different to others, they aren't having a tantrum or being un-cooperative they are simply overwhelmed and trying to cope best they can.’

Rosie.

One further area which cannot be classified as an SpLD but which warrants inclusion in the Guide is anxiety and mental health. In March 2016, the Department for Education published a booklet entitled ‘Mental health and behaviour in Schools: Departmental advice for School Staff’. This lists low self-esteem, academic failure, neurodiversity and communication difficulties as some of the high risk factors in the development of mental health issues. One that is particularly relevant in the classroom is anxiety.

What it is

Anxiety is the term we use to describe feelings of unease, fear or worry. It is a normal response to a frightening or unknown situation, such as attending a job interview or preparing for exams. However, unless recognised and managed appropriately, feelings of anxiety can escalate to something completely debilitating,

Anxiety is a common and recurring theme amongst people with SpLDs– a Dyspraxia Foundation survey in 2014 found that 40% of young people with Dyspraxia/DCD aged 13-19 years felt anxious ‘all the time’.

Many anxiety disorders begin in childhood and adolescence (Anxiety UK, 2016), and have been reported as one of the most common forms of psychological distress for people with learning differences (Deb et al., 2001; Emerson, 2003). Further, it is likely that individuals do not seek help for significant levels of anxiety, meaning that many remain undiagnosed and without treatment.

What it means

In an article published by the British Psychological Society journal in 2012, it is reported that ‘social anxiety in learning situations such as seminars and presentations can inhibit student participation and impair the quality of student life.’

Anxiety may manifest in disruptive behaviour, inattention, throwing tantrums, physical symptoms such as stomach aches or palpitations, and not engaging with the learning process. Children with learning differences are likely to become anxious when they realise that classmates are finding things easier than they are, which can become a block to

learning. Teachers should pay attention to the emotional climate of their classroom; it should not be threatening or anxiety provoking. An awareness and understanding of the issues faced by children and young people with neuro-divergence will help greatly in achieving this balance.

What to look for:

- tiredness;
- lack of concentration;
- irritability;
- sadness/withdrawal;
- loss of self-confidence;
- a change in behaviour;
- seems worried;
- easily upset;
- complains of feeling sick;
- complains of feeling shaky/dizzy;
- thinks unpleasant thoughts.

Prevalence

Around 1 in 6 people in the UK will experience a mental health problem like anxiety each year. This is a figure that has steadily increased over the last 20 years.

This means that up to five people in a classroom may be living with anxiety, whether that be OCD (obsessive compulsive disorder), social anxiety and shyness, exam stress, worry or panic attacks.

1. 13.3% of 16 – 19 year olds and 15.8% of 20 – 24 year olds have suffered from anxiety (neurotic episode).
2. 1.7% of 16 – 19 year olds and 2.2% of 20 -24 year olds have suffered from a depressive episode.
3. 0.9% of 16 – 19 year olds and 1.9% of 20 – 24 year olds have suffered from obsessive compulsive disorder.

(www.anxietyuk.org.uk/our-services/anxiety-information/young-people-and-anxiety)

Routes to identification

The Children and Adolescent Mental Health Service (CAMHS) work a 4 tier strategic framework, with teachers being in tier 1. This means that teachers may be the first person

to be alerted to a mental health issue, meaning they should act upon their concerns. Specific services will vary depending on the needs of the local area.

- The DFE suggest schools should have a clear process for identifying children in need of further support.
- They should document evidence of the symptoms or behaviour that are causing concern (and include this with the referral).
- They should encourage the pupil and their parents/carers to speak to their GP, where appropriate.
- Schools should work with local specialist CAMHS to make the referral process as quick and efficient as possible, for example by being clear who can refer, by ensuring schools have access to the relevant forms, and by sharing information about when decisions will be taken and fed back.
- They should understand the criteria that will be used by specialist CAMHS in determining whether a particular pupil needs their services.
- They should have a close working relationship with local specialist CAMHS, including knowing who to call to discuss a possible referral and allowing pupils to access CAMHS professionals at school.
- They should consult CAMHS about the most effective methods the school can undertake to support children whose needs aren't severe.

The DFE guide can be found at:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/508847/Mental_Health_and_Behaviour_-_advice_for_Schools_160316.pdf

Useful organisations

A great little video https://www.anxietyuk.org.uk/our-services/anxiety-information/young-people-and-anxiety/

http://www.mind.org.uk/

https://www.anxietyuk.org.uk/

http://www.nhs.uk/conditions/cognitive-behavioural-therapy/pages/introduction.aspx

A blog written by a young person with anxiety can be found at:

http://thinkoutsideofthecardboardbox.blogspot.co.uk/2014/01/dyspraxia-anxiety-and-me.html

Further information and references for mental health and anxiety

Deb, S., Thomas, M., & Bright, C. (2001). Mental disorder in adults with intellectual disability. 1: Prevalence of functional psychiatric illness among a community-based population aged between 16 and 64 years. *Journal of Intellectual Disability Research*, *45*(6), 495-505.

Emerson, E. (2003). Prevalence of psychiatric disorders in children and adolescents with and without intellectual disability. *Journal of Intellectual Disability Research*, *47*(1), 51-58.

Law, J., Peacey, N., & Radford, J. (2000). Provision for children with speech and language needs in England and Wales: Facilitating communication between education and health services.

Law, J., McBean, K., & Rush, R. (2011). Communication skills in a population of primary school-aged children raised in an area of pronounced social disadvantage. *International Journal of Language & Communication Disorders*, *46*(6), 657-664.

Price, G. R., & Ansari, D. (2013). Dyscalculia: Characteristics, causes, and treatments. *Numeracy*, *6*(1), 2.

Stothard, S. E., Snowling, M. J., Bishop, D. V., Chipchase, B. B., & Kaplan, C. A. (1998). Language-Impaired Preschoolers: A Follow-Up Into Adolescence. *Journal of Speech, Language, and Hearing Research*, *41*(2), 407-418.

Tomblin, J. B., Records, N. L., Buckwalter, P., Zhang, X., Smith, E., & O'Brien, M. (1997). Prevalence of specific language impairment in kindergarten children. *Journal of Speech, Language, and Hearing Research*,*40*(6), 1245-1260.

An overview of referral routes

SpLD	Options for further identification & support	Contact information
Dyslexia	Dyslexia screening – carried out by a non-specialist using a commercially available tool, training is recommended Dyslexia Specialist Teacher Assessment Educational Psychologist Assessment	http://www.bdadyslexia.org.uk/educator/bda-services-educators http://www.dyslexiaaction.org.uk/ https://www.helenarkell.org.uk/ https://www.patoss-dyslexia.org/
Dyspraxia	Referral to GP and paediatrician, occupational therapist and/or physiotherapist. May be by specialist educational assessment at college/University.	http://www.dyspraxiafoundation.org.uk http://www.movementmattersuk.org/ https://www.patoss-dyslexia.org/
ADHD	Referral to GP, paediatrician, and/or psychologist & psychiatrist	http://www.adhdfoundation.org.uk/ http://www.adders.org/
ASD	Referral to GP, paediatrician, and to a multi-disciplinary team.	http://www.autism.org.uk/
Dyscalculia	Dyscalculia screening – carried out by a non-specialist using a commercially available tool, training is recommended Specialist Teacher Assessment Educational Psychologist Assessment	http://www.bdadyslexia.org.uk/dyslexic/dyscalculia https://www.patoss-dyslexia.org/

SLI	GP and referral to SLT (Speech and Language Therapist). **Note**: parents and teachers can self-refer to a SLT.	www.ican.org.uk www.afasic.org.uk www.thecommunicationtrust.org.uk

Next steps: Suggestions for Continuing Professional Development

The contents of this Guide and the Teaching for Neurodiversity training materials are intended as a starting point in raising your awareness of neurodiversity and SpLD. It is recommended that you use these materials to identify areas where further reading and/or study is required.
Listed below are a number of recommended websites and courses providing suggestions for further CPD. We hope that you'll find these useful.

Autism Education Trust

See http://www.autismeducationtrust.org.uk for information about training opportunities and links to the Schools Autism Competency Framework.

British Dyslexia Association

See http://www.bdadyslexia.org.uk/educator/bda-services-educators for full details of training courses and accredited programmes from Level 2 upwards for educators working with all ages and levels of learners. These include:

- Practical Solutions for Reading, Writing, and Spelling
- Dyslexia and EYFS
- Practical Solutions for Primary, Secondary, FE and HE
- Screening for Dyslexia
- Dyscalculia
- Dyspraxia/DCD
- Music learning and dyslexia
- Onsite training
- eLearning
- SASC accredited training
- Spring and Summer schools
- Webinars

For BDA school awards programmes see http://www.bdadyslexia.org.uk/services/quality-mark and http://www.bdadyslexia.org.uk/about/projects/early-intervention-project-eip

Dyslexia Action

See http://www.dyslexiaaction.org.uk/educator-training for information and details of training programmes including:

- Level 4/5 CPD
- Postgraduate training
- Level 7 CPD
- Exam access arrangements
- Webinars

Dyspraxia Education

See http://www.dyspraxia-ed.co.uk/ for a range of CPD training for teachers and professionals.

Dyspraxia Foundation

See http://www.dyspraxiafoundation.org.uk for information and resources to help with understanding and supporting children and young people with dyspraxia/DCD.

Resources include a set of downloadable guidelines for teachers/lecturers supporting those with dyspraxia/DCD:

Primary. http://dyspraxiafoundation.org.uk/wp-content/uploads/2014/12/Primary-Classroom-Guidleines-Scanned.pdf

Secondary http://dyspraxiafoundation.org.uk/wp-content/uploads/2014/10/Secondary-school-guidance.pdf

Post 16 http://dyspraxiafoundation.org.uk/wp-content/uploads/2013/10/DYSP_12PP_2016.pdf

Helen Arkell Dyslexia Centre

See https://www.helenarkell.org.uk/courses.php for a full list of available courses, including:

- Free training for teachers
- Laser Learning Awards Level 3
- OCR Diploma Levels 5 and 7
- Writing diagnostic assessments
- Using and understanding standardised tests

- Assessing adults age 16+
- CPD Social, Emotional and Mental Health
- CPD ADHD and ASD
- Elklan Speech and Language Support

I CAN

See http://www.ican.org.uk/ICAN-Training.aspx for information about training courses for Early Years, Primary and Secondary practitioners.

London Leadership Strategy

See http://thesendreview.com for the SEND Review Guide, a tool which can be used by al schools to audit their SEND provision.

National Handwriting Association

See http://www.nha-handwriting.org.uk/courses-events for information on available CPD for teachers, including Courses, Events, and INSET training.

PATOSS

Patoss provides a range of professional development with many themes useful for schools. Some are regularly scheduled at central locations or they can be provided in-house at your school or institution.

A full listing of current CPD courses can be found on the Patoss website https://www.patoss-dyslexia.org/ProfessionalServices/EventsCPD

These include:

- The Graduated Approach: Assess-Plan-Do- Review
- Morphology for Teachers: An Introduction:
- Supporting Multilingual Dyslexic Learners using Morphology to Develop Vocabulary
- Developing your Dyslexic Students' Self-esteem:
- Dyscalculia: Identification and support of students with Mathematical Learning Difficulties, Dyscalculia and Dyslexic Students who have Difficulties with Maths
- Dyspraxia in Primary & Secondary settings:
- ADHD: Teaching and Managing Children and Young People with ADHD

- Diagnostic Assessment at Secondary Level: Best Practice in Testing and Reporting
- Study Skills for Secondary & FE Learners
- SENCos & Access Arrangements:
- Diagnostic Assessment at Secondary Level: Best Practice in Testing and Reporting
- Access Arrangements Introduction and Refresher sessions
- Training for SENCOs to qualify to conduct assessments for Access Arrangements – our Patoss AAA [Assessing for Access Arrangements]