

Music and Dyslexia



British **Dyslex!a**
Association

Music and dyslexia

July 2020

Table of Contents

Introduction	4
Layout of this document	4
References	5
Terms used	5
Relevance of this information	5
Hidden disabilities	6
Definition(s) and key features of dyslexia	6
How does this affect music?	7
Key features of dyslexia	7
What's it like being dyslexic?	9
Memory and memory difficulties	10
Dyslexia covers the lifespan	11
How might we recognise an individual who is dyslexic?	12
If you think an individual might be dyslexic, what can you do?	13
Co-occurring and secondary difficulties	15
GOOD NEWS!! Potential strengths	16
Dyslexia and music	17
Commonly reported difficulties for dyslexic people in music	17
General strategies	18
Slow processing speed: possible effects on music	18
Strategies	19
Memory and music	19
Strategies	20
Organisation for musicians	20
Confusion with right/left and other terms in music	21
Visual difficulties	22
Strategies for visual problems	23
Modified Stave Notation (MSN)	24
Technological alternatives	25
Photocopying	25
Written information (text)	26
Teaching approaches and strategies	27
Multi-sensory learning	27
Overlearning	29
Personalise	30
Structured & systematic approaches	30
Reading and writing of text	31
Dyslexia and music exams	32

Written exams	32
Reasonable adjustments	32
Possible adjustments in music exams	33
Examination boards.....	35
Associated Board of the Royal Schools of Music	35
Trinity College London.....	35
London College of Music	35
Rockschool	35
Information that needs to be given to support a request.....	36
Range of syllabuses	37
Further sources of information	37
References	40

Introduction

Make connections to your own expertise – about yourself or your students.

Ask yourself throughout this document

- How might this point affect musical activity?
- How might I support this difference in approach?

The information in this document is about adding to and re-framing what you already do as teachers and performers, rather than having to teach or work in a completely different way.

This document is set out in the following way. You can skip straight to sections such as 'Dyslexia and music' (p.18) or the various 'Strategies' sections which are given throughout in blue boxes.

Strategies are given
throughout in blue boxes

Click on a particular section in the Contents (pp.3-4), to go straight to it.

Layout of this document

➤ Definition(s) and features of dyslexia	pages 7-16
○ Memory	page 11
○ Potential strengths	page 17
➤ Dyslexia and music	page 18 & on
➤ General strategies	page 18
➤ Strategies in relation to slow processing speed	page 19
➤ Strategies in relation to memory	page 21
➤ Strategies in relation to organisation & terminology	pages 21-22
➤ Strategies in relation to visual difficulties	page 24
➤ Multi-sensory strategies	page 28
➤ Music exams	pages 34-38

References

We believe that it is important for you to know **where** the information in this booklet comes from: that it is based on evidence from reputable sources.

All such information is therefore referenced and you can follow up the links if you wish. These appear as little numbers (like this⁰) and details can be found at the **end** of the whole document. In the digital version, if you hover your mouse over the endnote number and/or click on it, details will be shown and all links are live. There are also a few footnotes (marked as such) at the bottom of pages.

Terms used

Neurodiverse. This is used to describe individuals who are dyslexic, have DCD/dyspraxic, ADHD or are on the autistic spectrum, for example. Use of this term emphasises the positive aspects of different ways of thinking, rather than considering them to be difficulties or disabilities. Neurodiverse ways of thinking are as acceptable as 'neuro-typical' ones.¹

Student. Refers to any individual from the age of 1 to 100!

Relevance of this information

- It's important because approximately 10% of people are dyslexic, and 4% of them severely so.² More than 15% are neurodiverse in some way.³
- Good approaches for dyslexic musicians are often good for all.⁴
- The ability to 'think outside the box' is useful for us all, in our own work as musicians as well as in our work with students.
- In law dyslexia, DCD/dyspraxia and other neurodiverse profiles are classed as a **disability**.⁵
- The Disability Discrimination Act (1995) stated that it is unlawful to discriminate against dyslexic people in education and in the

workplace.⁶ The Equality Act 2010 is slightly different but the objectives are the same.⁷

- Under **Equality law**, getting equality for disabled people may mean changing the way in which the workplace (including education) and assessments are structured. This is the **duty** to make **reasonable adjustments**.⁸
- The aim of these is to avoid as far as possible any disadvantage experienced because of disability (including dyslexia).⁶

Hidden disabilities

Dyslexia, DCD/dyspraxia, autistic spectrum condition, attention deficit disorder, mental health problems (including dementia) and hearing impairment/deafness are amongst many **hidden disabilities**.⁹

In order to support such individuals, we might need to

- Give people more time and put them under less pressure.
- Give information more slowly and perhaps in a range of format including demonstration.
- Be prepared to repeat information without feeling irritated.¹⁰

Definition(s) and key features of dyslexia

People with a dyslexic profile process information differently.¹¹ There are different definitions of dyslexia but there is consensus on a number of aspects:

- It is a learning difficulty that primarily affects skills involved in accurate and fluent **word reading and spelling**.

- Characteristic features of dyslexia are difficulties in **phonological awareness**^{footnote 1}, **verbal memory and verbal processing speed**.
- It occurs across the range of intellectual abilities.¹²

Difficulties with **phonological processing** are a key feature of dyslexia.¹³ In particular, this involves working with the units that make up language; that is words, syllables and the smaller sounds that make up syllables (e.g. m – a – t = 'mat'). Phonemic awareness is the ability to focus on and employ the individual sounds in spoken words. Such sounds are called **phonemes**.¹⁴

A **slow processing speed** is also a feature associated with dyslexia; it is **not** an indicator of low cognitive ability.^{footnote2 & endnote 15}

How does this affect music?

This all means that the processing of language, both verbal (such as instructions) and written and **some aspects of** the processing of music, may be slower than for a non-dyslexic person.¹⁶ The processing of **rhythm** in particular (keeping a steady beat and discriminating between rhythmic patterns, for example) may be an area of difficulty.¹⁷

Key features of dyslexia

- It primarily affects language.
- It is a cognitive difference.
- It is a continuum, not a distinct category – no clear cut off point.
- It is independent of cognitive ability.
- It involves a range of difficulties.

¹ **Phonological awareness** is the ability to consciously identify and manipulate language sounds.

² 'Cognitive ability' relates to 'the mental processes, such as perception, reasoning, problem-solving, etc, which enable humans to experience and process knowledge and information' (Chambers Dictionary).

- It is generally hereditary/genetic. It's not a disease.
- It is a **difference** in processing, not an abnormality.¹⁸
- Because of differences across languages dyslexic profiles can 'look' different. Spanish, for example is a 'transparent' language meaning that the pronunciation of words is **always** the same making it easier to read. English, (an opaque language) has many erratic spellings (e.g. 'though, through, enough, cough, bough' etc). English is therefore more difficult to learn and creates extra problems for dyslexic readers.¹⁹
- A dyslexic profile primarily affects reading and writing but may are often secondary challenges such as organisation and the stress and anxiety that results from the extra effort needed to complete so many tasks: a dyslexic individual may have to work **10 times harder and longer** to master a skill or achieve a particular task.²⁰

Dyslexia is one of a number of **neurodiverse developmental differences**, including

- DCD/Dyspraxia (developmental co-ordination disorder).
- Dyscalculia – specific difficulty with maths.
- Dysgraphia – specific difficulty with handwriting.
- AD(H)D = Attention deficit (and hyperactivity) disorder.
- Developmental Language Disorder.
- Autistic spectrum disorder (ASD).

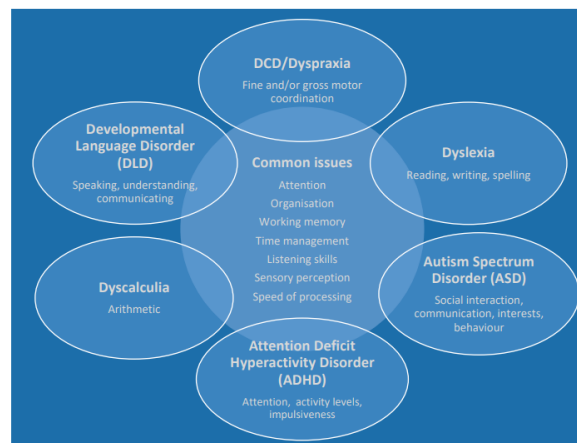


Figure 1. The neurodiversity 'umbrella'.²¹

Often these will overlap.²² People may be under the neurodiversity 'umbrella' in different ways and may well have more than one area of difference.

Dyslexia and other neurodiverse differences can affect many aspects of life

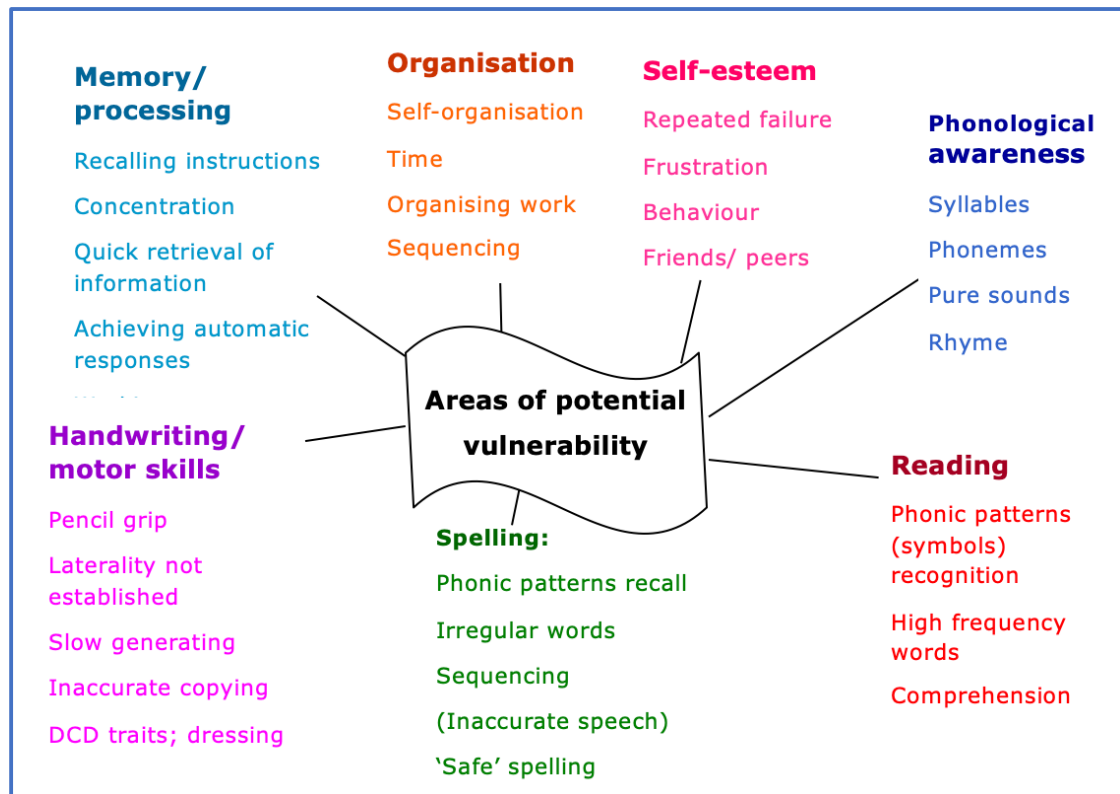


Figure 2. Areas of potential vulnerability ©Rosemary Hodi

What's it like being dyslexic?

Try reading the following

On ceup on atim ether eweret wobe ars

That is 'Once upon a time there were three bears' but with the letters of the words wrongly spaced ('On ceup on' = 'Once upon'.)

The time and energy taken to decode the first version might be an indication of the amount of time and energy that some dyslexic individuals use when decoding much printed material.

Dyslexic individuals, like a seal in the water, may well thrive in a suitable environment but really struggle and have to work hard, like the seal on dry land, when faced with lots of reading and memory work.

They can feel that they are square pegs in round holes: banged out of shape in an effort to fit in!



Memory and memory difficulties

Difficulties with short-term and working memory are often features of dyslexia. Long-term memory is usually secure, although with dyslexic individuals it may be slow.²³

Short-term memory²⁴ – such as briefly remembering a telephone number. (The use of rhythm and music may help individuals to remember such information.)

Working memory²⁵ is the phase before long-term memory. It is the memory we use to manipulate short-term information.

Doing 'Spoonerisms' is an example of such manipulation using working memory. In these, initial letters or sounds are transposed e.g.

The '**D**ear old **Q**ueen' becomes the '**Q**ueer old **D**ean'.

The dyslexic brain can find this very difficult.²⁶ Information seems to disappear because it's difficult to hold sufficient information at the same time. This isn't an issue of cognition, or understanding.

Dyslexics have **night-bulb** **lotions**



(Think of the Spoonerism!)

Dyslexia covers the lifespan

- Many teenagers and adults are 'well compensated' dyslexics²⁷ – that is they haven't 'fixed' their original difficulty, but they can adapt through compensating strategies.
- Such people who have 'cracked the code' may be able to read and write but the speed and accuracy of processing will remain a **persistent** difficulty.²⁸
- 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**.²⁸

As educators, the significance of this is the importance of such 'well founded intervention'. Teachers and parents need to understand, support and help, working **with** students to discover what works for them.

Remember, it may be the instrumental teacher who recognises a dyslexic student because he or she gets to know that person well and often in a 1:1 setting.

How might we recognise an individual who is dyslexic?

The following may be present

- A difficulty with reading (and other areas) which does not correlate to a student's cognitive ability.²⁹
- The individual seems to grasp a skill one day, then there is the need to start again from scratch the next.³⁰
- Weak processing speed.
- Poor short-term memory.
- Possible emotional impacts (low self-esteem etc).
- Difficulties processing material: visual or oral/aural.

(All points covered by reference³⁰)

Look out for clues in your students

- Left/right confusion. Ask, "Can you pick up a pencil with your left hand?"
- Can the student read material in his or her notebook?
- Is their writing legible?
- When you talk about the musical alphabet ABCDEFG, can they follow the sequence forwards or backwards?
- Do they know what day or month or what time it is?

If you think an individual might be dyslexic, what can you do?

1. Pre-16 years

- Parents should initially discuss their concerns with the teacher/SENCo in school.^{footnote 3}
- The SENCo may then carry out a dyslexia screening test or checklist.
- A school doesn't need a formal diagnosis to put support in place for a young person. However, a Diagnostic Assessment is the only way that dyslexia can be formally identified. It can help to ensure that the appropriate interventions are put in place and may be necessary for reasonable adjustments in academic and music examinations (see p.33).
- A Diagnostic Assessment may be requested by the school or parents could consider paying for a private assessment by a certified dyslexia assessor (either a Health and Care Professions Council registered educational psychologist or a suitably qualified specialist teacher holding a current Assessment Practising Certificate [APC]).
- Assessments are not available through the NHS.
- The British Dyslexia Association can offer advice and arrange Diagnostic Assessments.³¹
- Local Dyslexia Associations (LDAs)³² and the British Psychological Society may also provide lists of specialist dyslexia assessors.³³

2. Post 16 years in education

- Young people aged 16 years plus should be directly involved in decisions that affect their education and daily lives.
- They should discuss their needs with their education provider's learning support/disability team (school, FE College or University).

³ SENCo: Special Educational Needs Co-ordinator

- Support can be put in place without a formal diagnosis but dyslexia can only be formally identified by a Diagnostic Assessment, which may be arranged by the education provider or privately by the student.
- The education provider may have a list of recommended local certified dyslexia assessors.
- A Diagnostic Assessment is required if the student wishes to apply for funding for additional costs for assistive technology and support at university. However, a Diagnostic Assessment report from an assessment conducted at any age is acceptable providing it was by a certified dyslexia assessor.³⁴

3. Adults

- Employers have a duty to make reasonable adjustments in the workplace to accommodate the individual's difficulties.
- Dyslexia can only be identified through a Diagnostic Assessment carried out by a certified dyslexia assessor.
- Screening tests can give an indication of difficulties associated with dyslexia. **Music exam boards should be prepared to accept such a screening** on behalf of an individual post school age. However, the tests cannot provide a formal diagnosis and are not totally accurate.³⁵
- A Diagnostic Assessment report profiles the individual's strengths as well as their weaknesses and helps them to understand not only the reason behind their difficulties but also how to make the most of their abilities.
- The British Dyslexia Association can offer advice and arrange Diagnostic Assessments and Workplace Needs Assessments.³⁶

Details of screening tests can be found on the BDA website. See reference³⁷.

Co-occurring and secondary difficulties

These are difficulties that can occur **alongside** the aspects of dyslexia mentioned above.

They are not, by themselves, features of dyslexia.³⁸

These **may** be seen in the areas of

- Motor co-ordination.
- Mental calculation.
- Concentration.
- Personal organisation (see p.22 for some strategies in relation to music).
- Right/left confusion (see p.22 for strategies).
- Visual and auditory processing difficulties.

[All points covered by reference³⁸]

Also, for many dyslexic people, everything takes (up to 10 times) longer and requires more effort²⁰, leading to

- Stress.
- Anxiety (which can lead to mental health problems).
- Exhaustion.
- Lack of confidence.
- Low self-esteem.
- Poor motivation.³⁹

Many dyslexic people say things such as...

- "I know I can do stuff (I'm not stupid) but it won't turn out right"
- "Everything takes miles longer than other people"
- "I've always been told I'm thick"
- "This all makes me fed up"
- I'm always saying "Sorry".

GOOD NEWS!! Potential strengths

Dyslexic individuals can show a combination of **abilities** and difficulties that affect the learning process.

Areas of strength⁴⁰ may include

- Creativity.⁴¹
- Seeing the bigger picture (such as the architect, Richard Rogers⁴²; the 'Dragons' Den' entrepreneur, Theo Paphitis⁴² and the chef, Jamie Oliver⁴³).
- The use of imaging and patterns (which can include the analysis of music).
- Thinking in pictures, rather than words (such as the contemporary artist Robert Rauschenberg)⁴⁴ and
- Thinking outside the box.⁴⁴



There are many successful musicians who are dyslexic including Nigel Kennedy⁴⁵, Cher⁴⁶, Fleetwood Mac⁴⁷ and the opera singer, Anna Devin,⁴⁸ a BDA Ambassador.⁴⁹

Dyslexia and music

Commonly reported difficulties for dyslexic people in music

- The mastery and reading of written music especially the **speed** of processing a score.
- Grasping rhythms.
- Distinguishing the 'bits' in a musical phrase that occur in aural tests and in music making generally.⁵⁰
- Unusual perception of the keyboard (or positioning on other instruments) and laterality^{[footnote4].51; 52} Pattern is an extremely important aspect of learning an instrument, so finding ways of 'fixing' the patterns of specific instruments is important. See **Strategies** below. Although the use of pattern **may** be a dyslexic strength, this does not necessarily apply to spotting patterns **on a printed score**. However, pieces with specific patterns in terms of hand positioning (making the shape of chords or repetitive phrases that require specific hand shapes) may offer a 'way in' for dyslexic learners on piano or other instruments.

⁴ 'Laterality' = 'the difference in the mental functions controlled by the left and right cerebral hemispheres of the brain' (Collins, 2020).
<https://www.collinsdictionary.com/dictionary/english/laterality>

General strategies

- Take time (where possible)
- Break down sections of music – phrases etc.
- In aural: go from the simple to the more complex gradually. Make **really sure** of one level before progressing
- Find patterns in music (scales; arpeggios...)
- Play by ear; use recordings
- Repetition – practice!
- Teach/learn how to prepare sight-reading (annotation; colour etc.)
- Get music in advance where possible
- 'Fix' pattern on the piano with lots of over-learning, e.g. finding all the note As or Cs up & down the keyboard. Identify notes around the position of the 2 and 3 black keys.
- Sequence the musical letters A to G forwards and backwards and constantly over-learn/revise this. This is a good aid to reading notation.
- Look at patterns on fretboards (string instruments).
- Use guitar tablature to reinforce pattern.

Slow processing speed: possible effects on music

This may make it more difficult to

- Learn new music quickly.
- Remember (and process) information.
- Find the right words when talking (about music, for example).
- Name or label notes, intervals or chords (retrieving the right word from memory quickly).
- Keep track of where you are in a musical sequence (e.g. scales and arpeggios).

- Follow instructions.
- Multi-task (a lot goes on in music!).
- Map from music to instrument (especially fingerings) and follow the conductor.⁵³

Strategies

- Repetition; revision
- Use of a study buddy
- Building up layers of work
- Patience!

Memory and music

Difficulties with memory (see p.11) can affect

- Memorising music (transferring information from short-term and working memory to long-term).
- Responses in aural tests (for example, holding information in short-term memory and then in working memory in order to process it and respond).
- Remembering aspects of theory e.g. numbers of sharps and flats.
- Retaining verbal instructions.⁵⁴

Strategies

- The way something is remembered the first time makes a big difference to whether it is retained or not. Therefore, discuss memory strategies early on when learning a piece.
- Make memorising part of learning from the start. Memorise as you go, rather than leaving it to the end as a separate process
- Imagery: visualise music as a story/journey
- Chunking: breaking music (or information) down into sections
- Analysing music: keys; patterns; repetition
- Colour coding sections; focus on transitions
- Overlearning: repeat; rehearse; practice
- **Record and listen:** follow the score with a finger
- Play with the recording: blank out bars and play again

Patience (and understanding) are key

Both for the student (who might become frustrated with him or herself) and the teacher.

Dyslexic individuals may typically grasp something at one lesson/session but come back to the next session appearing not to remember at all (see p.14 and ^{endnote 30}).

Organisation⁵⁵ for musicians

Can be a particular problem because

- No two weeks may be the same.
- Rehearsals can be at different times.
- Practice needs to be organised (and how to do this individually may need to be taught).
- It can be a challenge remembering to take all the right things to lessons and rehearsals – music, instrument, equipment etc.

Some strategies in relation to organisation

- To do lists/reminders
- Putting a label on the music case
- **Texts**/emails (from the teacher or/and to self), including reminders on mobile
- YouTube video on practice techniques
- Teacher's website with suggestions
- Colour coding for different areas of work

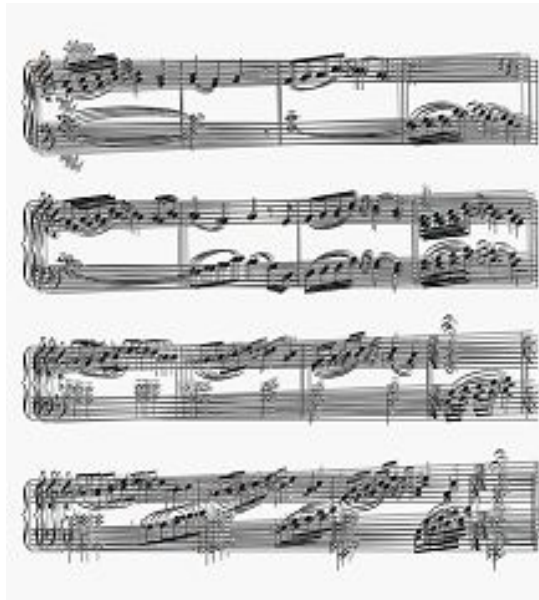
Confusion with right/left and other terms in music

Including 'high' and 'low' or 'up' and 'down' (different place for pianists, violinists, cellists etc. and often **not** top and bottom).⁵⁶

Point to places on the instrument, as well as using terms.

Visual difficulties

Can make music look something like this



- If you suspect that a student or colleague is experiencing visual difficulties such as this, where print (including music) may distort, be blurry, swirl around, jump about, pulsate or create 'rivers' of white space, for example, then that individual **must** be referred to a specialist optometrist, or at least have a standard eye test.⁵⁷
[You may need to search for a specialist optometrist. Ask your local optician for advice.]
- It is **not** a feature of dyslexia but may co-occur.⁵⁸

Strategies for visual problems

- Refer to specialist optometrist who may prescribe tinted glasses.
- Use of off-white paper & backgrounds to music, text, PowerPoints, computers etc, with individuals choosing their preferred colour.
- Enlarge the pages of music
- Consider whether written music is always needed.
- **Possible** use of coloured overlays. **See note below**

Usefulness of enlarging music: see reference⁵⁹.

Note on the use of coloured overlays

The BDA has useful information on this topic.⁶⁰

Note in particular the following from the BDA article

‘Some websites and providers of education resources offer coloured overlays, tinted reading rulers and other devices that may make reading easier and more comfortable for some... These aids may be helpful, but it is very important that they should not replace or discourage full professional assessment. In particular, coloured overlays and similar aids must not be promoted as the first strategy to help... with reading difficulties. If... visual difficulties [exist] then it is essential that these are diagnosed and managed correctly by qualified registered professionals.’

The SpLD Assessment Standards Committee (SASC) also has useful guidelines.⁶¹

Key points relating to visual difficulties are that

1. It is most important to have a proper visual examination.
2. Visual difficulties are not a feature of dyslexia but may co-occur.
3. Lighting should be carefully considered. Some individuals find fluorescent lighting particularly difficult. Natural light should be used where possible.⁶²

Re-writing notation

The visual format of the score can support or hinder dyslexic musicians' processing speed.

Areas to consider include

- Proportions of the bars
- How visually busy the score is
- The visual layout of rhythmic groupings

Re-writing a section of music using software such as Sibelius or Musescore can make it much easier to process.

A useful option is to enlarge or adapt the music in some way, by

- Photocopying
- Using modified stave notation (MSN)
- Using a different colour background paper
- Using different colour for the font or music notes

References for the strategies above.^{51 & 63}

Modified Stave Notation (MSN)

More information can be found on the RNIB website.⁶⁴

MSN enlarges the music without enlarging (e.g.) the space between the notes or the space between staves. A music software system such as Sibelius is needed.

Technological alternatives

e.g. the use of **forScore – music reader** for iPad⁶⁵ or other digital music stands (do a web search).

Such iPads have foot pedals for page turns and notation modifications can be specific to an individual.

The use of music on iPad is increasingly being used by professionals who need to carry around a lot of music.^{66; 67; 68}

Photocopying

But – can music be legally photocopied to do some of these things?

YES!

The Music Publishers' Association, Code of Fair Practice⁶⁹, clause 11.

"Reading impairments: A person with any kind of cognitive impairment or condition (such as, but not limited to, dyslexia) (whether diagnosed or not) resulting in a diminished or limited ability to read music or text as conventionally printed, may make copies in a format that enable them more easily to read a publication (such as, but not limited to, by enlarging it and/or by using coloured paper), provided that he/she has already legally acquired his/her own copy of the conventionally printed item.

Each copy must be marked with the following: 'Copy made with permission'".

Written information (text)

To make information clear for most individuals, please do the following,

- Avoid Times New Roman font as the serifs (the 'twiddly bits' on the letters) can make reading more difficult; Verdana is a good font (this doc). It makes a difference between I l and 1 (which Arial doesn't) and is well spaced.
- Choose font size of at least 12 point
- Use at least 1.5 spacing
- Avoid text in *italics*, underlining & CAPITALS
- Avoid handwritten material
- Use an off-white or pale blue background
- Use an off-white background on PowerPoints
- Separate bullet points on PowerPoints by using alternate colours (different blues are best as they are discernible by most colour-blind individuals)

For information about recommended fonts etc. see the British Dyslexia Association's 'Dyslexia Friendly Style Guide'⁷⁰ and references.⁷¹

Teaching approaches and strategies

Neurodiverse individuals learn best when approaches to work are

M.O.P.S.s.



Key approaches to support dyslexic individuals

- **M**ulti-sensory
- **O**verlearned
- **P**ersonalised
- **S**tructured
- **S**ystematic

Multi-sensory learning

means that learning is supported by the use of a number of senses.⁷²

We are lucky as music is, by its nature, a multi-sensory and active activity: we read both words and symbols, play, move, feel and so on.

Multi-sensory lessons are ones which are...

- Practical
- Active
- Colourful
- Use sound, drama and movement
- and use the unexpected

All this = efficient retention in the brain.⁷³

Multi-sensory approaches are ones which are

- **Visual**

Such as the use of pictures; diagrams; mind maps; colour coding and demonstrations.

- **Oral**

Such as explanations; repetition; recordings and discussion

- **Kinaesthetic**

Such as hands-on work; tactile exploration; writing.

Examples could include

- **Studying pieces of music**

Students could play or sing key themes

- **Aural:** recognition of different intervals

Sing them; make shapes in the air; use tunes (of student's choice) that use the interval...

- **Recognition of metre**

Mark a pulse physically – walking; running; skipping...

Useful multi-sensory methods in music

Include the approaches of Kodály and Dalcroze

Kodály⁷⁴

Dalcroze⁷⁵

Colour can be useful⁷⁶

For example, music could be colour coded to show recurring themes, tricky sections of fingering, links between lines/systems. **But** the student

should **choose** his/her preferred colour and should notate the music him/herself if possible.

Beware the V.A.K. learning style 'solution'

Teachers sometimes use an approach called 'VAK', or 'visual, auditory, kinaesthetic' to describe an individual's learning style and may believe that an analysis of a student's learning style into one of these can point to a way of teaching this individual. However, it is generally a mistake to choose **one** - the best method is to use all of them! Mix them up and keep everything interactive.⁷³

Overlearning

In music, as in learning to drive,

- Newly-acquired skills should be practised well beyond the point of initial mastery, leading to **automaticity**. Dyslexic individuals often have real difficulty in getting to this 'automatic' stage.⁷⁷
- It's important to link one skill to previous knowledge
- Use a variety of learning approaches (see **Multi-sensory** above): explanation, doing, technology etc.

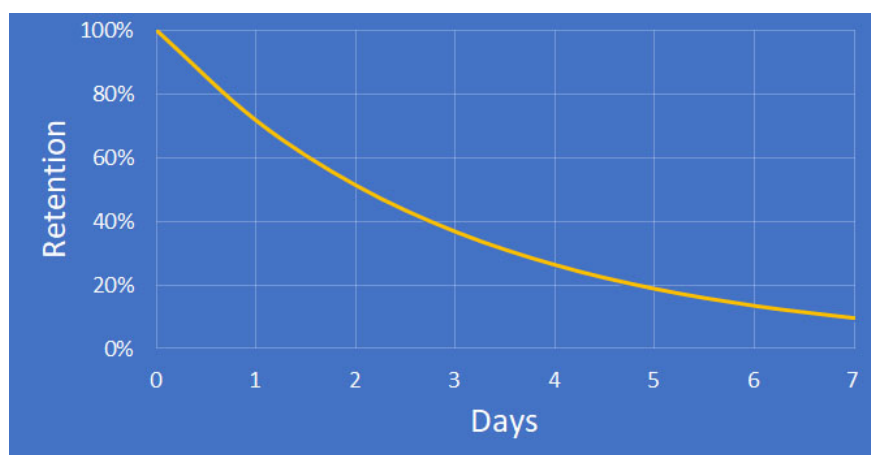


Figure 3. Ebbinghaus forgetting curve⁷⁸

This shows the way in which information/skills decline over time. However, with review/repetition the skill and/or information will be reinforced.⁷⁹

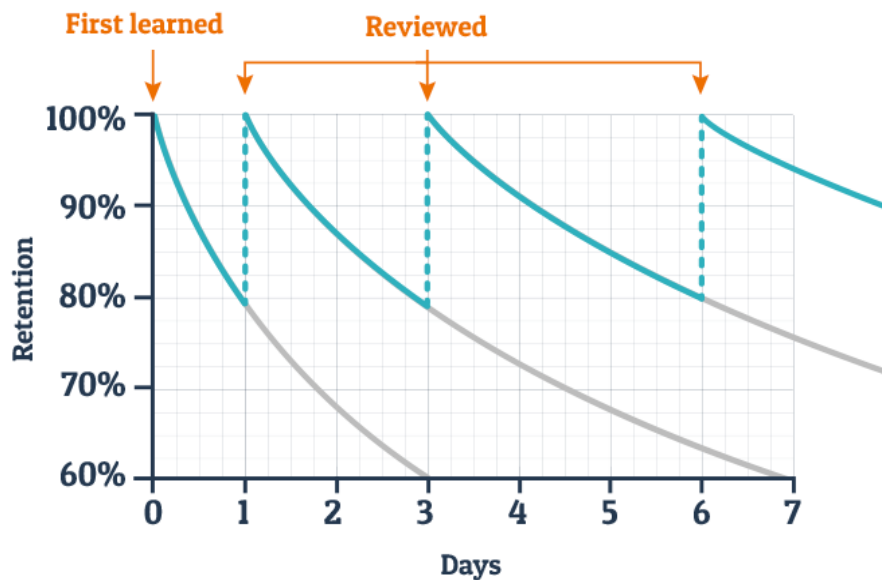


Figure 4. Ebbinghaus forgetting curve with reviewing⁸⁰

Personalise

One size doesn't fit all!⁸¹

What work for one person (or for you), may not work with someone else. Individualise teaching as far as possible.

Structured & systematic approaches

Structure lessons

- Outline content; summarise during & at the end.
- Chunk information
- Break down tasks
- Create small targets

Systematic learning

- Make sure of one point or skill before going on

These suggestions are based on best practice within learning and teaching.⁸²

See also the Universal Design for Learning and teaching using multiple means of engagement, multiple means of representation and multiple means of action and expression which will benefit dyslexic students greatly.^{83 & 84}

Let them choose what works best for them.

- Make verbal notes on a phone at the end of a lesson (helping the student to summarise)
- Use a notebook
- Make sketches that will be a reminder of how to practise or which goals to focus on.

Reading and writing of text

- Avoid asking dyslexic individuals to read aloud⁸⁵; try asking for volunteers so that dyslexic people can offer if they feel confident or not if they are not confident.
- Provide information in advance where possible so people can be prepared for the session – avoid giving information at the last minute.
- Online information is useful as it can be re-formatted and/or read by text to speech software.
- Avoid asking (all students) to take written notes – is this necessary?
- Can you provide (summary) notes online?

Dyslexia and music exams

All Specific Learning Difficulties/neurodiverse ways of thinking may affect music exams⁸⁶ in areas including

- Sight-reading.
- Difficulties with written material, in both practical and theory exams.
- **Short term memory** problem affecting (e.g.)
- Aural tests.
- Remembering instructions (e.g. "Please play B harmonic minor, a third apart, staccato" which has 5 'bits' to it).

Written exams

Problems can include

- Reading information at speed & correctly.
- Completion in the time.
- Interpreting instructions e.g.

'Using crotchets, write one octave ascending of the melodic minor scale that begins on the given note. Do not use a key signature, but write in all the necessary accidentals.' **EIGHT instructions:** miss one and you may get the whole thing wrong. A dyslexic candidate with reading difficulties may be at a real disadvantage.

Reasonable adjustments

can be applied to most assessments.⁸⁷

The Equality Act 2010 requires an Awarding Body to make **reasonable adjustments** where a disabled person would be at a substantial disadvantage in undertaking an assessment.⁸⁸

This is a legal requirement.⁸⁹

What is 'reasonable'?⁹⁰

This depends on a number of factors including

- The needs of the disabled candidate.
- Cost. An adjustment may not be considered reasonable if it involves unreasonable costs, timeframes or affects the security or integrity of the assessment.

Adjustments are not generally made to the assessment objectives being tested in an assessment. The aim is for a 'level playing field' for all candidates.⁹¹

Examples

- The mark required to pass an exam would be a competence standard, so would not be subject to the duty to make reasonable adjustments.
- But – a reasonable adjustment might give a disabled person a longer time in which to complete an exam.
- Adjustments may be unique to an individual.

Access arrangements

'are agreed before an assessment. They allow candidates with specific needs, such as special educational needs... to access the assessment and show what they know and can do without changing the demands of the assessment'.⁹²

BDA Music has information documents on music and exams and also the range of exam options available which can be obtained from

info@musicdyslexia-spld.co.uk

Possible adjustments in music exams

- The access coordinator for the exam Board will either contact any candidate/teacher entering with a 'disability' code or the teacher/candidate can contact the Co-ordinator.
- Individual adjustments can be discussed; the main music exam Boards are generally very open to suggestions

Standard adjustments may include

- Extra time: for sight-reading, aural, transposition etc. Usually 25% for written exams
- Ability to annotate sight-reading tests during the preparation time
- Making notes of instructions and questions
- Examiner prepared to repeat these
- Exam components in any order
- Modified tests (enlarged etc.) for sight-reading; aural etc.
- Use of tinted paper/coloured overlays
- Pointing out the place in sight-reading if lost
- Examiner being briefed on the candidate's condition: they are asked to speak clearly and be aware that neurodiverse candidates may become muddled
- Individualising of terms e.g. 'A7' rather than 'dominant of D'
- Replays of scales
- Use of scale manual or words for singers for reference only
- Performance from modified copies. The original must be brought to the exam room and the copy marked 'Copy made with permission'²⁵
- The use of an amanuensis or reader in a written exam
- No loss of marks for incorrect spelling, punctuation or grammar in written exams
- The use of an exam standard reading pen in written exams (see Dyslexic.com (2016). *C-Pen Reader* <https://www.dyslexic.com/product/c-pen-reader/>)

Examination boards

Associated Board of the Royal Schools of Music

Go to their main website and then **Exam Booking** on the top navigation bar.⁹³

You will then get to the following which gives options for different disabilities including **Fair access information for candidates with dyslexia, dyspraxia or other learning difficulties.**⁹⁴

The page also gives contact details for the **Access Coordinator.**

ABRSM has a very useful booklet, *Making Music Accessible: Teaching students with dyslexia.*⁹⁵

Trinity College London

Go to their website: 'Music special needs.'⁹⁶

There is a form for **Special needs provision** and under **Details of condition** 'Specific Learning Difficulty (including dyslexia, dyspraxia, ADHD)' is one of the options.

Contact music-csn@trinitycollege.com to discuss specific needs. Again, the coordinator will be helpful and may be able to provide adjustments that aren't obvious from the website information.

London College of Music

Go to University of West London website: 'Equality of Opportunity, Reasonable Adjustment and Special Consideration'.⁹⁷

Rockschool

Go to RSL 'Policies and Regulations'.⁹⁸
and download their 'Equal Opportunities Policy'.

Information that needs to be given to support a request

For candidates who are at or who have recently left school

The following is taken from the ABRSM, recommendations, which are likely to apply to most music exam Boards.⁹⁹

Acceptable supporting evidence includes

- A letter/email from a Head Teacher/Principal.
- A letter/email from a Special Educational Needs Coordinator (SENCo).
- A letter/email from the Disability Dept at a college of FE/HE.
- A letter/email from a suitable qualified healthcare professional.
- A report from an Educational Psychologist or other suitable qualified professional.

The supporting evidence should

- Be dated.
- State the author's job title and contact details.
- Give full name & date of birth of the candidate.
- Confirm the candidate's specific needs and include details of any formal assessment.
- Provide details of reasonable adjustments in place for other exams (such as GCSEs).
- Outline the candidate's normal way of working.

For adult (post-18) candidates

The most recent documentation with a covering letter should be acceptable.

If there is no documentation, use a dyslexia screening test. See p.15.

Evidence **must** be gathered and sent to the Board in good time before the deadline for entries.

If in doubt about adjustments that are possible for you or your candidate's eligibility for these, contact the exam board or BDA Music at info@musicdyslexia-spld.co.uk@gmail.com

Range of syllabuses

Either different Boards and/or different syllabus options may be more suitable for some neurodiverse candidates.

ABRSM, Trinity, London and Rock School are all recognised by Ofqual.

Some exams have no sight-reading, scales and/or aural.

Some exams have no pass/fail option.

For further information about the possible range of syllabuses', contact BDA Music.

Further sources of information

- *Music, other Performing Arts and Dyslexia*. Available from info@musicdyslexia-spld.co.uk@gmail.com as a book or an electronic download.
- Oglethorpe, S. (2002) 2nd ed. *Instrumental music for dyslexics: A teaching handbook*. London: Whurr Publishers. Available mainly second hand on the internet.
- Miles, T.R. & Westcombe, J. (eds.) (2001) *Music & Dyslexia: Opening New Doors*. London: Whurr Publishers.
- Miles, T.R., Westcombe, J. & Ditchfield, D. (eds.) (2008) *Music and Dyslexia: A Positive Approach*. London: Wiley.

Look at examples of dyslexic musicians

For example, in Miles and Westcombe *Music and Dyslexia: Opening New Doors* there is a chapter '**A pianist's story**' by **Gill Backhouse**. An

abbreviated version of this is available on the BDA Music website (search for **Music**) or from the email address above.

This describes a highly dyslexic adult professional pianist.

- “Lessons with her first teacher became an ordeal”
- Then **she** was allowed to take the lead.
- She “perceived music quite [differently] from many of her colleagues
- She saw patterns and shapes in music”
- She was encouraged to “focus on structure...
- To play with her eyes closed”
- Instead of telling her pupils the names of notes (which she often got wrong!) she **showed** them.

She uses

- Memory rather than the score (while rehearsing) as this is “a distraction”.
- She needed to trust her motor skills & memory.
- She discovered **her learning style**.

Renowned opera soprano, **Anna Devin**, is dyslexic and has shared many of her approaches to music. Contact BDA Music for details of her talk at ‘A Music and Dyslexia Day’, 2018. She has also given a webinar¹⁰⁰ and a ‘Woman’s Hour’ talk on 9th June, 2015.¹⁰¹

Finding an individual’s own best ways of learning, or the use of **metacognition**¹⁰² is particularly important for dyslexic individuals.

**Remember that
good 'dyslexia-friendly' strategies
are
good strategies
for all musicians¹⁰⁴**

**For further information contact
info@musicdyslexia-spld.co.uk@gmail.com
and see**

<https://www.bdadyslexia.org.uk/advice/children/how-can-i-support-my-child/music-and-dyslexia>

References

¹ **Neurodiversity (p.6)**

Armstrong, T. (2010). *Neurodiversity: Discovering the Extraordinary gifts of Autism, ADHD, Dyslexia, and Other Brain Differences*. Cambridge MA: Da Capo Press.

² **Incidence of dyslexia (p.6)**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd. p.1.

'Dyslexia is often seen as a hidden disability and the estimates from a range of sources suggest that 10-15% of the population have dyslexia and around 4-5% severely' **and**

NHS (2018). *Dyslexia: Overview*. Retrieved May 28, 2020, from <https://www.nhs.uk/conditions/dyslexia/>

³ **Incidence of neurodiversity (p.6)**

Acas (2020). *Neurodiversity in the workplace*. Retrieved June 29, 2020, from

<https://archive.acas.org.uk/neurodiversity#:~:text=Most%20people%20are%20neurotypical%2C%20meaning,learns%20and%20processes%20in formation%20differently>

⁴ **Good practice for dyslexics is generally good practice for all (p.6)**

Mackay, N. (2009). 'Dyslexia in the secondary school: Improving whole school achievement through dyslexia-aware best practice'. In G. Reid (ed.), *The Routledge Companion to Dyslexia* (pp.203-353). London: Routledge. **and**

Jisc (2020). *Enhancing staff support for learners with disabilities*.

Retrieved June 5, 2020, from <https://www.jisc.ac.uk/guides/enhancing-staff-support-for-learners-with-disabilities#>

⁵ **Definition of disability (p.6)**

Gov.uk (2020). *Definition of disability under the Equality Act 2010*

Retrieved May 25, 2020, from <https://www.gov.uk/definition-of-disability-under-equality-act-2010>

⁶ **Disability Discrimination Act (pp.6 & 7)**

UK Government (1995). *Disability Discrimination Act 1995* Retrieved May 25, 2020, from <http://www.legislation.gov.uk/ukpga/1995/50/data.pdf>

⁷ **Equality Act 2010 (p.6)**

Gov.UK (2015), *Equality Act 2010: Guidance*. Retrieved May 25, 2020, from <https://www.gov.uk/guidance/equality-act-2010-guidance>

⁸ Reasonable adjustments (p.7)

See Section 20 of the Equality Act:

<http://www.legislation.gov.uk/ukpga/2010/15/section/20>

⁹ Hidden disabilities (p.7)

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd.

¹⁰ General strategies (p.7)

Reid, G. (2013). *Dyslexia and inclusion [electronic resource]: classroom approaches for assessment, teaching and learning* (2nd ed.). Abingdon: Routledge. **and**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester, UK: John Wiley and Sons Ltd.

[He brings together strategies in each section of his book]. **and** Mortimore, T. (2008). *Dyslexia and learning style: A practitioner's handbook*. (2nd ed.). Chichester: John Wiley and Sons Ltd.

¹¹ Processing differences (p.7)

Reid, G. (2013). *Dyslexia and inclusion [electronic resource]: classroom approaches for assessment, teaching and learning* (2nd ed.). Abingdon: Routledge. p.12.

¹² Definition of dyslexia (p.8)

Rose, J. (2009). *Identifying and Teaching Children and Young People with Dyslexia and Learning Difficulties*. London: Department for Children Schools and Families (DCSF) Publications. p.10.

¹³ Difficulties with phonological processing (p.8)

Shaywitz, S. (1996). 'Dyslexia'. *Scientific American*. November, pp.78-86.

¹⁴ Definition 'phoneme' (p.8)

Schwarz, C. (1993), *The Chambers Dictionary*. Cambridge: The University Press.

¹⁵ Slow processing speed (p.8)

Butnik, S. (2013). *Understanding, Diagnosing, and Coping with Slow Processing Speed*. Retrieved May 28, 2020, from <https://www.davidsongifted.org/search-database/entry/a10782>

¹⁶ Application of dyslexic difficulties to music (p.8)

Notation

(a) 'Perhaps the most obvious parallel is that both music and dyslexia involve notational systems. In our case studies, all of the subjects reported difficulties with the notational systems of music and written language. Their way of compensating for these difficulties was to

approach a piece of music holistically. PM, for example, reports that her image of music is not symbols on a page but rather a "tangible structure in sound" (Backhouse, 1994, p.29). Several musicians describe a musical line in terms of "feeling" and "visualizing colored images." Compensations for dyslexics in reading often are also holistic; they infer the general idea or gist from a passage, rather than reading each word.'

Ganschow, L., Lloyd-Jones, J. & Miles, T.R. Dyslexia and musical notation. *Annals of Dyslexia* 44, 185–202 (1994).

(b) There are differences between the reading of text and music. See Flach, N., Timmermans, A. & Korpershoek, H. (2014). 'Effects of the design of written music on the readability for children with dyslexia'. *International Journal of Music Education*, 1-13.

(c) Other research states that there is no evidence to suggest that dyslexics will struggle with the processing of music notation. See Benson, N.J., Lovett, M.W. & Kroeber, C.L. (1997). 'Training and transfer-of-learning effects in disabled and normal readers: Evidence of specific deficits'. *Journal of Experimental Child Psychology*, 64, 343–366.

(d) Although another research study shows also that 'dyslexic children **are** able to learn musical notation... they experience considerable difficulty with the automatization of this system of conventions.' See Jaarsma, B.S., Ruijsenaars, A.J.J.M. & Van den Broeck, W. (1998). 'Dyslexia and learning musical notation: A pilot study'. *Annals of Dyslexia*, 48(1), 137-154.

(e) In terms of **pitch discrimination**, the research suggests that a person with dyslexia may struggle with pitch differences of a half-step or less. See Hämäläinen, J.A., Salminen, H.K. & Leppänen, P.H.T. (2013). 'Basic auditory processing deficits in dyslexia: Systematic review of the behavioral and event-related potential/field evidence'. *Journal of Learning Disabilities*, 46, 413–427.

There are certainly difficulties with rhythm. See reference 16 below

¹⁷ **Difficulties with rhythm (p.8)**

Studies with young children indicate that difficulties with keeping a steady beat or being able to discriminate between rhythmic patterns appears to correlate to difficulties with reading skills. So, we can conclude that a person with dyslexia may struggle with rhythm, pulse and meter. See

Carr, K.W., White-Schwoch, T., Tierney, A.T., Strait, D.L. & Kraus, N. (2014). Beat synchronization predicts neural speech encoding and reading readiness in preschoolers. *Proceedings of the National Academy of Sciences*, 111, 14559–14564.

Overy, K. (2000). Dyslexia, temporal processing and music: The potential of music as an early learning aid for dyslexic children. *Psychology of Music*, 28, 218–229.

Ozernov-Palchik, O., Worf, M. & Patel, A.D. (2017). 'Relationships between early literacy and nonlinguistic rhythmic processes in kindergarteners'. *Journal of Experimental Child Psychology* 167, pp.354-368.

¹⁸ **Key features of dyslexia (p.8)**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd.

¹⁹ **Different languages (p.9)**

Stackhouse, J. & Snowling, M.J. (Eds.). (2006). *Dyslexia, speech and language: A practitioner's handbook*. Retrieved from <https://ebookcentral.proquest.com>

Pages 4-8 contain discussions about different languages, the transparency of their orthography and the effect that that has on a dyslexic student learning to read.

²⁰ **Organisation; stress & the need to work much harder (pp.9 & 17)**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd.

²¹ **Neurodiversity 'umbrella' (p.9)**

Department of Education (2018). *Understanding neurodiversity: A guide to specific learning differences*. Retrieved on May 28, 2020 from https://www.patoss-dyslexia.org/write/MediaUploads/A_Guide_to_SpLD_2nd_ed.pdf

²² **Co-occurrence of neurodiverse differences (p.10)**

Same as above. (p.1)

²³ **Difficulties with short-term and working memory (p.11)**

Menghini, D., Carlesimo, G.A., Marotta, L., Finzi, A. & Vicari, S. (2010), 'Developmental dyslexia and explicit long-term memory'. *Dyslexia*, 16, 213-225.

²⁴ **Short-term memory (p.11)**

Reid, G. (2013). *Dyslexia and inclusion [electronic resource]: classroom approaches for assessment, teaching and learning* (2nd ed.). Abingdon: Routledge. p.12.

²⁵ **Working memory (p.12)**

Jeffries, S. and Everatt, J. (2004). Working memory: Its role in dyslexia and other specific learning difficulties. *Dyslexia*, 10, 196-214.

²⁶ **Manipulating information in short-term memory (p.12)**

Reid, G. (2013). *Dyslexia and inclusion [electronic resource]: classroom approaches for assessment, teaching and learning* (2nd ed.). Abingdon: Routledge.

²⁷ **'Well compensated' dyslexic individuals (p.12)**

International Dyslexia Association (2020). *Compensatory strategies: What does the science say?* Retrieved May 28, 2020, from <https://dyslexiaida.org/compensatory-skills-and-dyslexia-what-does-the-science-say/>

²⁸ **Effect of intervention (p.12)**

British Dyslexia Association (2001). *Achieving Dyslexia Friendly Schools*. Bracknell: British Dyslexia Association.

²⁹ **Difficulties that don't correlate with general capability (p.13)**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd.

³⁰ **Grasping a skill one day and not remembering the next (p.13)**

Reid, G. (2013). *Dyslexia and inclusion [electronic resource]: classroom approaches for assessment, teaching and learning* (2nd ed.). Abingdon: Routledge. p.12.

³¹ **Is an individual dyslexic? (p.14)**

BDA (2020). *Is my child dyslexic?* Retrieved June 11, 2020, from <https://www.bdadyslexia.org.uk/advice/children/is-my-child-dyslexic/diagnosis>

³² **Local dyslexia associations (p.14)**

BDA (2020). *Local Dyslexia Associations*. Retrieved June 12, 2020, from <https://www.bdadyslexia.org.uk/contact/find-a-local-dyslexia-association>

³³ **British Psychological Society (p.14)**

The British Psychological Society (2020). *Find a psychologist*. Retrieved June 12, 2020, from <https://www.bps.org.uk/public/find-psychologist>

³⁴ **Diagnosis post 16 (p.15)**

BDA (2020). *In education*. Retrieved June 11, 2020, from <https://www.bdadyslexia.org.uk/advice/adults/in-education>

³⁵ **Diagnostic assessment for adults (p.15)**

BDA (2020). *Adult (16+)*. Retrieved June 11, 2020, from <https://www.bdadyslexia.org.uk/advice/adults/am-i-dyslexic>

³⁶ **Diagnostic assessment (p.15)**

BDA (2020). *Screening, diagnostic and workplace needs assessments*. Retrieved June 11, 2020, from <https://www.bdadyslexia.org.uk/advice/adults/in-the-workplace/screening-diagnostic-and-workplace-needs-assessments>

³⁷ **Screening tests (p.15)**

BDA (2020). *Dyslexia screening*. Retrieved June 11, 2020, from <https://www.bdadyslexia.org.uk/dyslexia/how-is-dyslexia-diagnosed/dyslexia-screening>

³⁸ **Co-occurring and secondary features (pp.16 & 17)**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd.

³⁹ **Dyslexia and stress (p.16)**

Miles, T.R. (Ed.) (2004). *Dyslexia and Stress* (2nd ed.) London: Whurr Publishers.

⁴⁰ **Areas of strength (p.17)**

Notice-ability (2020). *Our Story*. Retrieved June 22, 2020, from <https://www.noticeability.org/who-we-are>
This includes a TED talk, 'The True Gifts of a Dyslexic Mind' by Dean Bragonier.

⁴¹ **Dyslexia and creativity (p.17)**

Gobbo, K. (2020). *Dyslexia and creativity: Diverse minds*. Newcastle: Cambridge Scholars Publishing.

and

Cancer, A., Manzoli, S. & Antonietti, A. (2016). The alleged link between creativity and dyslexia: Identifying the specific process in which dyslexic students excel, *Cogent Psychology*, 3, 1.

⁴² **Richard Rogers (architect) & Theo Paphitis (p.17)**

Rooke, M. (2016). *Creative Successful Dyslexic: 23 high achievers share their stories*. London: Jessica Kingsley. pp.184-191.

⁴³ **Jamie Oliver (p.17)**

Made by dyslexia (2017). *Jamie Oliver madebydyslexia interview*. Retrieved June 8, 2020, from

<https://www.youtube.com/watch?v=MMMxtZXLrUA>

There are a number of useful videos on the same YouTube page

⁴⁴ **Thinking in pictures and**

Thinking outside the box (pp.17 & 18)

Gobbo, K. (2020). *Dyslexia & Creativity: Chuck Close's Micro-Uniting and Universal Design*. Retrieved June 3, 2020, from <https://www.differentbrains.org/dyslexia-creativity-chuck-closes-micro-uniting-and-universal-design/>

⁴⁵ **Nigel Kennedy (p.17)**

Email from Holly Topps, Nigel Kennedy's PA to BDA Music, January 22, 2020.

⁴⁶ **Cher (p.17)**

Cher. (1990). 'Cher: Oscar winning film star'. In Hampshire, S. (Ed.), *Every Letter Counts*. London: Bantam Press. pp.159-163.

⁴⁷ **Fleetwood Mac (p.17)**

Parkman, B. (2020). *Mick Fleetwood Credits His Dyslexia with the Drumming Pattern in One of Fleetwood Mac's Greatest (sic) Hits*. Retrieved June 18, 2020, from <https://www.cheatsheet.com/entertainment/mick-fleetwood-credits-his-dyslexia-with-the-drumming-pattern-in-one-of-fleetwood-macs-greatest-hits.html/>

⁴⁸ **Anna Devin (p.17)**

Devin, A. (2018). Transcript of talk given at 'Music and Dyslexia day', a conference held at Morley College, London. Not published, but available from BDA Music: info@musicdyslexia-spld.co.uk@gmail.com and Webinar 2020.

⁴⁹ **BDA Ambassadors (p.17)**

British Dyslexia Association (2020). *Ambassadors*. Retrieved 8 June, 2020, from <https://www.bdadyslexia.org.uk/about/ambassadors>

⁵⁰ **Commonly reported difficulties in music (p.18)**

Oglethorpe, S. (2002). *Instrumental Music for Dyslexics: A Teaching Handbook*. London: Whurr Publishers Ltd.

⁵¹ **Unusual perception of the keyboard (or other instruments) (p.18)**

Oglethorpe, S. (2002). (2nd ed.) *Instrumental Music for Dyslexics: A Teaching Handbook*. London: Whurr Publishers Ltd. p.78.

⁵² **Laterality (p.18)**

Thomson, M. (2007). *Supporting Dyslexic Pupils in the Secondary Curriculum: Dyslexia and Music*. Retrieved June 8, 2020, from http://training.cpdbytes.com/ResourceFiles/All/2_8Music.pdf (p.9).

⁵³ **Effect of slow processing speed (p.20)**

Oglethorpe, S. (2002). *Instrumental Music for Dyslexics: A Teaching Handbook*. London: Whurr Publishers Ltd.

⁵⁴ **Effect of memory (p.20)**

Oglethorpe, S. (2002). (2nd ed.) *Instrumental Music for Dyslexics: A Teaching Handbook*. London: Whurr Publishers Ltd.

⁵⁵ **Organisation (p.21)**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd. (Ch.8).

⁵⁶ **Right/left; up/down confusion (p.22)**

Oglethorpe, S. (2002). (2nd ed.) *Instrumental Music for Dyslexics: A Teaching Handbook*. London: Whurr Publishers Ltd. p.34. **and** Thomson, M. (2007). *Supporting Dyslexia Pupils in the Secondary Curriculum*. Stirling: Dyslexia Scotland. p.9.

⁵⁷ **Visual difficulties (p.23)**

British Dyslexia Association (2020). *Neurodiversity and Co-occurring difficulties: Visual difficulties*. Retrieved June 3, 2020, from <https://www.bdadyslexia.org.uk/dyslexia/neurodiversity-and-co-occurring-differences/visual-difficulties>

⁵⁸ **Co-occurrence of visual difficulties (p.23)**

Quercia, P. *et al.* (2013). 'Developmental dyslexia and vision.' *Clinical ophthalmology*, 7 869-81.

⁵⁹ **Enlargement of music (p.24)**

Flach, N., Timmermans, A. & Korpershoek, H. (2014). 'Effects of the design of written music on the readability for children with dyslexia'. *International Journal of Music Education*, 1-13

Research showed that the number of mistakes dyslexic pupils made when reading music 'was reduced by enlarging the staves and also by writing all the stems of the notes in the same direction' (p.1) and 'Dyslexic students needed 32% larger fonts to reach their maximum reading speed compared to normal readers at the same level of word reading'. (p.3). **and**

Ganschow, L., Lloyd-Jones, J. & Miles, T.R. Dyslexia and musical notation. *Annals of Dyslexia* 44, 185-202 (1994).

There is evidence that enlarging the score is helpful for students as is any sort of modification which simplifies the information. For instance, one

clef could be shown at a time. The idea of 'window-ing' information (putting a 'window' like the see-through bit on some envelopes) is also useful and is a way of dealing with this problem. All these approaches are ways of reducing the amount that has to be processed at one time. Musescore and Sibelius are tools which can enable the teacher/ student to re-organise/ simplify/ modify music to do this.

⁶⁰ **Coloured overlays (p.24)**

British Dyslexia Association (2020). *Visual Difficulties*. Retrieved June 8, 2020, from <https://www.bdadyslexia.org.uk/dyslexia/neurodiversity-and-co-occurring-differences/visual-difficulties>

⁶¹ **SASC guidance on coloured overlays (p.24)**

SpLD Assessment Standards Committee (2018). *Specific Learning Difficulties (SpLDs) and Visual Difficulties A Guide for Assessors and SpLD Practitioners*. Retrieved June 8, 2020, from https://sasc.org.uk/SASCDocuments/Visual_Difficulties_guidance_for_SpLD_practitioners_Final_June2018.pdf

⁶² **Lighting: best practice (p.25)**

Gilchrist, J., Holden, C. & Warren, J. (2018). SASC AGM presentation. (not published.)

⁶³ **Re-writing notation (p.25)**

Oglethorpe, S. (2002). (2nd ed.) *Instrumental Music for Dyslexics: A Teaching Handbook*. London: Whurr Publishers Ltd. **Particularly** see Ch. 4 'Visual challenges'.
and see reference ⁵¹

⁶⁴ **Modifed Stave Notation (p.25)**

RNIB (2020). *Modifed Stave Notation*. Retrieved June 3, 2020, from <http://www.rnib.org.uk/information-everyday-living-home-and-leisure-music-reading-music-accessible-formats/modified-stave-notation>

⁶⁵ **forScore (p.26)**

forScore (2020). *forScore*. Retrieved June 3, 2020, from <https://forscore.co/>

⁶⁶ **Music on iPad (p.26)**

Riley, P. (2013) 'Teaching, Learning, and Living with iPads', *Music Educators Journal*, 100(1), 81–86.
iPads are used by professional musicians and by music educators. This article discusses using an iPad as a resource for organisation, etc.

⁶⁷ **Use of iPad by Tamara Stefanovitch (p.26)**

Email to BDA Music from Tamara Stefanovitch re her use of an iPad at the BBC Prom on 12th August, 2018 (email dated 16th August 2018)

⁶⁸ **Use of iPad by Joyce DiDonato (p.26)**

Use of iPad by Joyce DiDonato (p.25)

Email to BDA Music from Joyce DiDonato re her use of an iPad at the BBC Prom, August 2019 (email dated 26th August, 2019).

⁶⁹ **Music Publishers' Association: Code of Fair Practice (p.26)**

Music Publishers Association. (2016). *The code of fair practice agreed between composers, publishers and users of printed music*. Retrieved on May 28, 2020, from <https://mpaonline.org.uk/wp-content/uploads/2016/09/MPA-Code-of-Fair-Practice.pdf>

⁷⁰ **BDA 'Dyslexia Friendly Style Guide' (p.27)**

British Dyslexia Association. (2020). *Dyslexia Friendly Style Guide*.

Retrieved June 3, 2020, from

<https://www.bdadyslexia.org.uk/advice/employers/creating-a-dyslexia-friendly-workplace/dyslexia-friendly-style-guide>

⁷¹ **Recommended fonts and formatting (p.27)**

Rello, L. & Baeza-Yates, R. (2013). 'Good Fonts for Dyslexia'. *Proceedings of the 15th International ACM SIGACCESS Conference on Computers and Accessibility*. Linz, Austria. pp.14:1-14:8

⁷² **Multisensory (definition) (p.28)**

Merriam-Webster (2020). *Multisensory*. Retrieved June 4, 2020, from

<https://www.merriam-webster.com/dictionary/multisensory>

⁷³ **Multisensory advantages (p.29)**

Shams, L. & Seitz, A. (2008). 'Benefits of multisensory learning'. *Trends in Cognitive Sciences*, 12(11), 411-417.

⁷⁴ **Kodály (p.29)**

British Kodály Academy (2020). *Kodály Approach*. Retrieved June 4,

2020, from <http://kodaly.org.uk/about-us/kodaly-approach/>

⁷⁵ **Dalcroze (p.29)**

Dalcroze UK (2020). *What is Dalcroze Eurythmics?* Retrieved June 4,

2020, from <https://dalcroze.org.uk/about-us/what-is-dalcroze/>

⁷⁶ **Colour (p.29)**

Dzul kifli, M.A. & Mustafar, M.F. (2013). 'The Influence of Colour on Memory Performance: A Review'. *The Malaysian Journal of Medical Sciences*, 20(3), 3-9

'Colour is believed to be the most important visual experience to human beings'.

⁷⁷ **Automaticity (p.30)**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd.

⁷⁸ **Ebbinghaus forgetting curve (p.30)**

Barnard, D. (2018). *Overcoming the Ebbinghaus Forgetting Curve with Virtual Reality*. Retrieved June 4, 2020, from <https://virtualspeech.com/blog/overcoming-ebbinghaus-forgetting-curve-virtual-reality>

⁷⁹ **Repetition and reinforcement (p.31)**

Reid, G. (2013). *Dyslexia and inclusion [electronic resource]: classroom approaches for assessment, teaching and learning* (2nd ed.). Abingdon: Routledge.

⁸⁰ **Ebbinghaus forgetting curve with reviewing (p.31)**

Wranx (2020). *What is the Ebbinghaus forgetting curve?* Retrieved June 4, 2020, from <https://blog.wranx.com/ebbinghaus-forgetting-curve>

⁸¹ **Personalised approaches/individualisation (p.31)**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd.

⁸² **Best practice in learning and teaching (p.32)**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd. **and**
Reid, G. (2013). *Dyslexia and inclusion [electronic resource]: classroom approaches for assessment, teaching and learning* (2nd ed.). Abingdon: Routledge.

⁸⁴ **Universal Design for Learning (p.32)**

CAST. (2020). *Universal design for learning framework*. Retrieved on May 28, 2020, from http://udlguidelines.cast.org/?utm_medium=web&utm_campaign=none&utm_source=cast-about-udl

⁸⁵ **Avoid asking to read aloud (p.32)**

Jamieson, C. & Morgan, E. (2008). *Managing Dyslexia at University: A Resource for Students, Academic and Support Staff*. London: Routledge. See p.36 'Advice for teaching staff: students' reading'.

⁸⁶ **Effect on music exams (p.33)**

Oglethorpe, S. (2002). *Instrumental Music for Dyslexics: A Teaching Handbook*. London: Whurr Publishers Ltd. See 'Examinations and performances' pp.152-154

and (as an example of information from the music examination Boards) Associated Board of the Royal Schools of Music (2019). *Support for candidates with Specific Needs taking ABRSM exams*. Retrieved 4 June, 2020, from <https://gb.abrsm.org/en/exam-booking/specific-needs>

⁸⁷ **Reasonable adjustments (p.33)**

An example of information from one of the main music examination Boards

Associated Board of the Royal Schools of Music (2019). *Support for candidates with Specific Needs taking ABRSM exams*. Retrieved 4 June, 2020, from <https://gb.abrsm.org/en/exam-booking/specific-needs>

⁸⁸ **Legislation re reasonable adjustments (p.33)**

Legislation.gov.uk (2010). *Equality Act 2010*. See Section 20 'Duty to make adjustments'. Retrieved June 4, 2020, from <http://www.legislation.gov.uk/ukpga/2010/15/section/20>

⁸⁹ **Legal requirement (p.33)**

Joint Council for Qualification (2020). *Access Arrangements, Reasonable Adjustments and Special Consideration: An Overview*. Retrieved June 4, 2020, from <http://www.jcq.org.uk/exams-office/access-arrangements-and-special-consideration>

⁹⁰ **What is 'reasonable' (p.34)**

Cognassist (2020). *How do you define what adjustments are reasonable for individual neurodiverse learners?* Retrieved June 4, 2020, from <https://cognassist.com/how/reasonable-adjustments/what-are-reasonable-adjustments>

and

Joint Council for Qualifications (2020). *Access Arrangements and Reasonable Adjustments 2019-20*. Retrieved June 4, 2020, from <http://www.jcq.org.uk/exams-office/access-arrangements-and-special-consideration/regulations-and-guidance/access-arrangements-and-reasonable-adjustments-2019-20> (see p.3).

⁹¹ **Aim of 'level playing field' (p.34)**

JCQ as above. See Section 5.3, p.27

⁹² **Access arrangements (p.34)**

Joint Council for Qualifications (2020). *Access Arrangements and Reasonable Adjustments 2019-20*. Retrieved June 4, 2020, from <http://www.jcq.org.uk/exams-office/access-arrangements-and-special-consideration/regulations-and-guidance/access-arrangements-and-reasonable-adjustments-2019-20>

[consideration/regulations-and-guidance/access-arrangements-and-reasonable-adjustments-2019-20](#) (see p.3).

⁹³ **ABRSM (p.36)**

ABRSM (2019). *Specific Needs*. Retrieved June 4, 2020, from <https://gb.abrsm.org/pt/exam-booking/specific-needs/>

⁹⁴ **ABRSM Fair access information (p.36)**

ABRSM (2019). *Dyslexia, dyspraxia or other learning difficulties*. Retrieved June 4, 2020, from <https://gb.abrsm.org/pt/exam-booking/specific-needs/candidates-with-specific-learning-difficulties-including-dyslexia-and-dyspraxia/>

⁹⁵ **'Making music accessible' (p.36)**

ABRSM (2019). *Making music accessible: teaching students with dyslexia*. Retrieved June 4, 2020, from ABRSM (2019). *Dyslexia, dyspraxia or other learning difficulties*. Retrieved June 4, 2020, from <https://gb.abrsm.org/pt/exam-booking/specific-needs/candidates-with-specific-learning-difficulties-including-dyslexia-and-dyspraxia/>

⁹⁶ **Trinity College London (p.36)**

Trinity College London (2020). *Music Special Needs*. Retrieved June 4, 2020, from <https://www.trinitycollege.com/qualifications/music/special-needs>

⁹⁷ **London College of Music (p.36)**

University of West London (2020). *Equality of Opportunity, Reasonable Adjustment and Special Consideration*. Retrieved June 5, 2020, from <https://lcme.uwl.ac.uk/equality-of-opportunity-reasonable-adjustment-and-special-consideration>

⁹⁸ **Rock School (p.36)**

RSL (Rock School Ltd) (2020). *Policies and Regulations: Equal Opportunities Policy*. Retrieved June 5, 2020, from <https://www.rslawards.com/about-us/policies-regulations/>

⁹⁹ **ABRSM recommendations for supporting evidence for reasonable adjustments (p.37)**

ABRSM (2020). *Specific Needs: Access Policy*. This can be downloaded as a pdf and the relevant information can be found in Section 5, pp.4-5. Retrieved June 5, 2020, from <https://gb.abrsm.org/en/exam-booking/specific-needs/>

¹⁰⁰ **Anna Devin (p.38)**

Devin, A. (2018). Transcript of talk given at 'Music and Dyslexia day', a conference held at Morley College, London. Not published, but available from BDA Music: info@musicdyslexia-spld.co.uk@gmail.com and Webinar 2020.

¹⁰¹ **Anna Devin, talk on 'Woman's Hour' (p.38)**

BBC (2015). *Woman's Hour: Dealing with dyslexia through music*. Soprano Anna Devin. See 36:25 minutes into the whole broadcast. Retrieved June 5, 2020, from <https://www.bbc.co.uk/sounds/play/b05xdc3>

¹⁰² **Metacognition (p.39)**

Reid, G. (2016). *Dyslexia: a practitioner's handbook*. (5th ed.). Chichester: John Wiley and Sons Ltd. p.117.

¹⁰⁴ **Good dyslexia-friendly strategies are good for all (p.39)**

Jisc (2020). *Enhancing staff support for learners with disabilities*. Retrieved June 5, 2020, from <https://www.jisc.ac.uk/guides/enhancing-staff-support-for-learners-with-disabilities#>

'Inclusive practice is good practice - it reduces barriers for disabled learners but also provides positive benefits for all other learners'.

Please note

This information was correct on August 4th, 2020.

The BDA cannot be held responsible for changes in websites and other information that may have occurred since and you are advised to check these.