

# DYSLEXIA AND EDUCATION

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## Introduction

There are many different views of what dyslexia is, from disability and difficulty through to difference and learning preference. Dyslexia is in fact a neurodiversity, where the brain is wired differently. Other neurodiversities include dyspraxia, dyscalculia, dysgraphia, autism spectrum and attention deficit hyperactivity.

In the case of dyslexia, for example, brain research shows that whilst most people use the 'verbal' left side of the brain to process information, making them neuro-typical word-based thinkers, dyslexic individuals use the 'visual' right side of the brain. In short, they tend to turn words into pictures to understand them, and then have to turn the picture back into words to respond – a process that requires extra effort and time if they are required to present something in words. As a result, many with dyslexia prefer to receive and present information in visual and creative ways.

Dyslexia Foundation of New Zealand, therefore, regards dyslexia as a learning preference. And advocates a 'notice and adjust' approach to ensuring dyslexic learners are supported to achieve their potential. While the most immediate attribute of dyslexia can be an issue decoding words and their meanings, there is a broader range of

skills that can be impacted. These may include auditory and visual perception, planning and organising, motor skills, short-term memory and concentration. Some of these can make it especially challenging for individuals to follow instructions, turn thoughts into words and finish work on time. Overall, dyslexia's greatest difficulty is self-esteem – it only becomes a problem if not appropriately addressed.

As a problem, incorrectly addressed dyslexia can lead to disruptive classroom behaviour, alienation, anti-social behaviour, truancy, depression, suicide, drug use and crime. As a solution, dyslexia can become a key driver for creative thinking and produce the kind of innovation and entrepreneurship sorely needed in an increasingly IT-led world, and in challenging economic times.

Importantly, dyslexia is one of the few causes of social dysfunction that can be easily addressed. And the costs of doing so are an investment that will return huge dividends. By prioritising and addressing dyslexia in schools we avoid flow on adult related costs – social services, criminal services, mental health services and so forth.



## Introduction

Since inception in November 2006, Dyslexia Foundation of New Zealand has built its reputation on successful advocacy and action and has become the foremost lobby group in this area, working with schools, government departments and stakeholders. In September 2008, the Foundation teamed up with international dyslexia expert Neil McKay to launch a revolutionary 4D | For Dyslexia programme for New Zealand schools. This empowered schools to take constructive action and make meaningful changes to help students with dyslexia or dyslexic type learning preferences.

Today, the 4D programme remains as relevant as ever in helping educators, parents and caregivers support our dyslexic tamariki and rangatahi. Whilst many schools have in recent years adopted a Structured Literacy approach to learning, the fact remains that dyslexia is more than just a difficulty with reading and writing.

This booklet takes the key strategies from the 4D programme and outlines ways in which teachers can improve the learning environment for all. This involves making 'dyslexia-aware' best practice a common practice, so that no child is left behind. Success at school shouldn't depend on dyslexic students being lucky enough to be

assigned a dyslexic-aware teacher: dyslexia-aware best practice should be a school-wide phenomenon.



## Action & accountability in education

Debate on the precise definition of the term 'dyslexia' has occupied academics for decades. This often seems to engender an attitude that until you can completely define dyslexia, you can't begin to address it – a stalemate which international dyslexia expert Neil MacKay refers to as “paralysis by analysis”.

Dyslexia Foundation takes an alternative approach, identifying constructive action that can be taken based on the significant body of research and experiential evidence that already exists on dyslexia. After-all, for the estimated 70,000 dyslexic schoolchildren in our Kiwi classrooms, actions speak much louder than words.

This approach is built around a simple but highly effective philosophy of 'notice and adjust'. In the classroom, this is about noticing which students are having difficulty, and making simple adjustments to the way in which they are taught and assessed so that they can flourish. This means replacing old-school 'one-size-fits-all' thinking with individualised or personalised learning strategies, and accepting alternative evidence of achievement, perhaps oral and visual based rather than written.

These strategies are also at the foundation of the National Curriculum, which recognises that equity in education comes not through treating all students equally, but through recognising and accommodating difference within the classroom environment. Changes in the school environment often begin with a committed school principal, supported by an emotionally engaged 'champion' from within the staff, who together can take the whole school on a journey towards making dyslexia-aware best practice the norm.





## Know your child's legal rights

This section, also replicated in our Dyslexia & the Family booklet, sets out legal rights in respect of the New Zealand education system. In essence, our education system must provide every young New Zealander with the opportunities they need to reach their potential - that's the law. Under New Zealand and international law, equality of educational opportunity means that a school must identify and remove barriers to achievement.

In New Zealand, the Education Act 1989 REQUIRES school boards to enrol students in their schools irrespective of the students' needs or abilities. Schools MUST identify students with special education needs. They are REQUIRED to develop teaching and learning strategies to meet their needs.

It's that simple.

Students should, as a result of their rights being met, feel confident, feel like they belong, enjoy school, want to go to school, have friends, have a say in what goes on for them, feel challenged at school, and feel proud of the things they have learned and achieved.

Your child has these rights – your child has the right to be

dyslexic. Because the education system does not always recognise and respond automatically to this right, dyslexic students may require strong advocacy by parents and others who wish to see them succeed and reach their potential.

### **Working as a partnership is critical – Student | Parent | Teacher**

Where it is in the students' educational best interest:

#### **Students have the right NOT to:**

- be tested
- be timed
- be humiliated because of their difference
- read aloud in class
- show what they know [assessment] only through written work
- do homework
- present their writing to the class

## Know your child's legal rights

### Students **HAVE** the right to:

- be dyslexic
  - participate in decision-making
  - make mistakes
  - the necessary amount of time to process the information / situation
  - be respected and valued for their strengths
  - classroom adjustments that allow greater access to learning
  - special Assessment Conditions to level the playing field, like extra time, a reader, a writer, use of a computer, or a quiet space
  - to be listened to, and their needs met and supported
  - explicit teaching
  - access the curriculum in ways that best suit their learning profile
  - an Individual Education Programme [IEP]
- make changes to the way the classroom environment is set up
  - make changes to the way that they present lessons
  - allow alternatives to writing, like mind maps and audio / video recordings, to be used as forms of learning evidence and participation
  - give extra time or remove time as a barrier
  - let their students give them feedback
  - teach part of the curriculum well, rather than the whole curriculum poorly
  - seek more funds from the Ministry to allow students' rights to be met

There are no barriers to making the necessary changes other than a willingness to do so – attitude is everything.

### Teachers and schools **HAVE** permission to:

- identify students who learn differently and take all necessary action to support & allow participation
- meet with and talk openly to students, parents and caregivers





## Brain research & the concept of learning preference

Understanding the concept of learning preference is a critical place to start in dealing with dyslexia. This is about understanding that dyslexic individuals think differently, so naturally prefer to receive, process and present information in ways that make more sense to them. As they tend to think in pictures rather than words – receiving and retrieving information in a different part of the brain to neurotypical, word-based thinkers – they often prefer to receive and present orally or visually rather than via the written word.

If you are interested in finding out more about the functional magnetic resonance imaging (fMRI) research that shows differences between neurotypical and dyslexic brains, the work of Yale scientist Dr Sally Shaywitz is a good place to start. Dr Shaywitz's was one of the first laboratories to image the dyslexic brain using fMRI. They have imaged several thousand children and adults as they read. Their findings, combined with fMRI data from around world, show that three neural systems are used for reading, all in the left side of the brain.

Dyslexics, however, have a neural signature of disruption with two of these neural systems. Firstly, the posterior

reading systems, especially the left occipito-temporal (word-form) region responsible for fluent, rapid reading, are disrupted. Secondly, compensatory systems develop in the frontal regions of the left and right hemispheres of the brain, in order to support increased reading accuracy over time. However, as the word-form region does not fully develop, compensatory pathways do not provide fluent or automatic reading.

This means that dyslexic students might well know the answer, but have a problem pulling the information out and articulating it. This is why accommodations of extra time for examinations and tests, for example, have a neurobiological basis and help level the playing field for dyslexic students. More on classroom accommodations and adjustments can be found in section 2 of this booklet.

Strengths in creativity and higher level thinking processes have become exciting areas for ongoing international dyslexia research. Dr Shaywitz investigates this as part of her work.



## Brain research & the concept of learning preference

Another pioneer in this area is US researcher Thomas G West, who is the author of three acclaimed books – *In the Mind's Eye*, *Thinking Like Einstein* and *Seeing what Others Cannot See*. West contends that it is time to learn from the distinctive strengths of dyslexics, rather than just focusing on perceived weaknesses or failures. He has sought to understand the talents of successful dyslexics and study how these talents are important for education and work, especially in a world of radical economic and technological change.

*In the Mind's Eye* is a seminal work that profiles some of the world's most original (and dyslexic) intellects, including Albert Einstein, Thomas Edison, Lewis Carroll, and Winston Churchill. These gifted thinkers relied heavily on visual modes of thought, processing information in terms of images instead of words or numbers. West examines learning difficulties experienced by both famous and everyday people, and explores how neurological research shows an association between visual talents and verbal difficulties. West also examines how computers enhance the creative potential of visual thinkers, as well as interactive computer applications at all levels of education and work.

*Thinking Like Einstein* profiles several highly creative visual thinkers, such as James Clerk Maxwell, Nikola Tesla, and Richard Feynman, and investigates the new worlds of visual thinking, insight, and creativity made possible by computer graphics and information visualisation technologies.

*Seeing what Others Cannot See* explores high level creativity and brain diversity. West profiles a range of highly talented people with dyslexia or Asperger syndrome, and explores visual thinking and the broad impact of information-rich visual technologies. Individuals featured include a dyslexic professor of palaeontology, a dyslexic Caltech molecular biologist who helped to start the biotech revolution (designing new sequencing machines, co-founding seven new biotech companies and developing bold new theories 12 years ahead of others in the field) and a family in Britain with (over five generations) many dyslexics and many visual thinkers and four winners of the Nobel Prize in physics.

## Improving the learning environment for all

By getting it right for dyslexic students; you get it right for everyone. Sounds like a bold statement, but it is common sense if you look at it from the perspective of providing personalised or individualised learning. This type of approach is something that all students can benefit from.

Maori and Pacific Island students, who historically have oral cultures, can also gain significant benefits from this approach. Dyslexia aware classroom practices, based around personalisation and the right to learn differently, have the potential to make a significant difference to the education and life chances of these students.

This approach is one of 'notice and adjust' – notice students who are having issues and adjust the teaching accordingly. This includes strategies based on developing comprehension through use of context, syntax and grammar, and looking at areas such as organisation of ideas, planning skills, learning to remember, raising self-esteem and valuing emotional intelligence. Multi-sensory techniques, effective use of language, chunking of tasks and instructions, assessment for learning and marking alternative evidence of achievement (work presented in forms other than writing,

for example mind maps) are also valuable tools. The notice and adjust approach is covered in detail in the implementation section of this booklet.

Teachers can learn from their students too, as students will often have strong views on what will work when a linear teaching style does not. Some things may be as simple as using dyslexia-friendly fonts – usually Arial, Calibri or Comic Sans at 14 point with 1.5 line spacing. Others require a little more adjustment.

Dyslexia-appropriate strategies and accommodations deliver better exam results and improvements in attendance, punctuality and parental confidence.





## The difference teachers can make

Children begin school full of curiosity and eagerness to learn but quickly become disillusioned by unexpected failure in the classroom. Teachers, therefore, have a vital role to play in identifying potentially dyslexic students early in the education journey.

By identifying students with dyslexic-like learning preferences early and referring them for screening when necessary, teachers can make a real difference before children begin to experience frustration and integrate this as a sense of being less than others, resulting in low self-esteem and alienation. This is critical, given the potential longterm consequences of poorly addressed dyslexia. These can include truancy, depression, suicide, drug use and crime.

Direct correlations between learning differences/neurodisabilities and youth offending have been well documented. In 2012, the Children's Commissioner for England published a report which ("Nobody Made the Connection: The prevalence of neurodisability in young people who offend", Nathan Hughes et al) showed 43-57% reported prevalence of dyslexia amongst young people in custody, 23-32% learning disabilities, 60-90% communication disorders. In

2014 in New Zealand, Auckland University's Kate Peirse O'Byrne published the first comprehensive analysis of neurodisability and youth offending specific to New Zealand. In a special report published in the Youth Court journal, Issue 67, she noted that failing to take account of neurodisability in responding to offending was indefensible.

In the classroom, problems can arise if teachers equate weak basic skills with some sort of inability to think. If students are put into groups that are appropriate for basic skills but not for their thinking levels, they can quickly become frustrated and act out. This is because many dyslexic students think faster than they read – so putting them in low-ability groups and measuring them solely on reading ability wrongly labels them as 'failures'. Stress and anxiety most often caused by the learning environment is 80% of the problem, compounding insecurities and consequent bad behaviour.

The solution is about placing students in thinking ability appropriate groups while supporting them with basic skills. This empowers them to develop high level subject knowledge and skills while their basic skills are catching up. Data collected by international dyslexia expert Neil



## The difference teachers can make

MacKay, showed dyslexia-aware schools in the UK who were engaged in the UK Quality Marking initiative (recognising schools for the quality of their inclusive practice) made improvements in a range of measurable indicators. These included attendance, attainment (measured through data), achievement (measured through assessment for learning), and student and parental confidence, not just for dyslexic students; but for a wide range of vulnerable learners.

Assessment for learning means assessing progress throughout the lesson, rather than waiting to assess the output at the end and finding that coursework or an end of unit test has not been completed successfully. Improved attendance and punctuality were seen once teaching styles, methods and materials were modified with a dyslexia-aware focus. This focus enabled teachers to pull together a range of approaches into a coherent response, and head teachers commented that, once they got it right for dyslexic students, this seemed to enhance the learning of a majority of pupils in the school, with or without specific learning needs. For those with dyslexia, significant gains towards closing the learning gap have been made, with improvements recorded specifically in writing, reading, maths and science.



## Reading and phonics

A structured approach to reading based on phonics is clearly the best way to commence teaching students to read, however too much focus on reading accuracy can be detrimental for dyslexic students, particularly those whose skills may be weak in this area but strong in others. This is because it risks damaging self-esteem by giving them more and more of what they find extremely difficult to achieve. Likewise, a reliance on one form of phonics over another may be problematic if the chosen method simply does not suit the student. The most important thing is that students learn, so again personalised or individualised approaches work best. Some introductory information on reading accuracy and the role of phonics is provided below.

Firstly, we should note that dyslexic students think faster than they read – so putting them in low-ability groups and measuring them solely on reading ability wrongly labels them as 'failures' or 'slow', impacting self-esteem. Experience shows us that we can push and push a child to improve reading accuracy up to a point, but there comes a time when the law of diminishing returns kicks in. Teaching harder does not work, we need to teach differently. At this point, the best approach – based on the 'notice and adjust' philosophy – is about teaching

students to use their literacy skills in the best way they can. The proof that thinking is more important than reading? Weak readers who can think and who are valued for their intellect can go on to achieve their potential. Strong readers who can't think go nowhere.

Magic bullets are highly sought after but often fail to perform to expectations. This is the case with reading accuracy, which for many years has been a preferred academic response to dyslexia – based on the idea that if we can teach children to read accurately through the use of phonics, then the 'problem' of dyslexia will disappear.

This, however, overlooks the fact that dyslexia is not simply an issue with reading and writing skills. Rather it's a learning preference which can bring a broad spectrum of difference – from enhanced creativity and 'out-of-the-box' thinking through to issues with auditory and information processing, planning and organising, motor skills, short-term memory and concentration. Difficulties with basic skills are merely symptoms of dyslexia, so any magic bullet which hoped to 'cure' basic skill difficulties would need to be aimed at the root cause of these symptoms: a brain that is wired differently.



## Reading and phonics

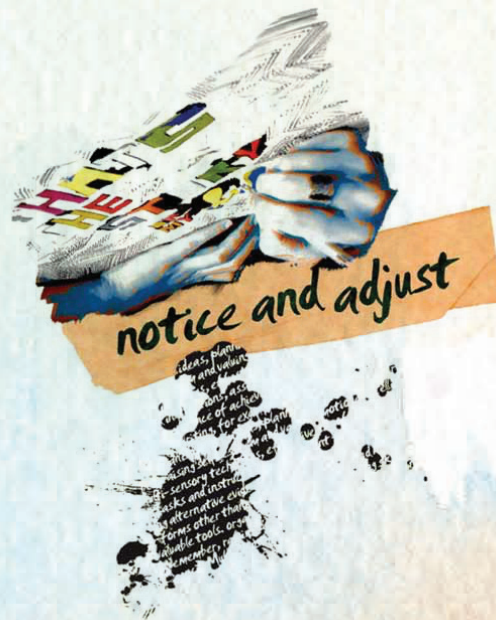
In essence, dyslexia thinkers receive and retrieve information in a different part of the brain to neurotypical, word-based thinkers. They tend to think in pictures rather than words. And often prefer to receive and present orally or visually rather than via the written word.

The DFNZ supports a Structured Literacy Approach to teaching reading, such as the Better Start Literacy Approach from Canterbury University. Find out more at <https://www.betterstartapproach.com>

Overall, it is important to understand dyslexia as a learning preference and work with, and support, students from this preference perspective. Put simply, this means understanding that dyslexics think differently, and so naturally prefer to receive, process and present information in the way that makes more sense to them.

If your child has been taught reading using a Structured Literacy Approach and they are not making sufficient progress, it is worth investigating other multi-sensory and meaning based approaches, along with adopting a Notice and Adjust strategy. 'Notice and adjust' is about implementing personalised and individual learning strategies based on noticing what is not working and

making simple changes, for example using visuals, colour and real objects as props through to reducing classroom noise and distractions. You can read more at <https://dfnz.org.nz/education/>





## Classroom adjustments – What’s involved?

A whole school approach is an important component of this approach. The reasons for this are three-fold. Firstly, success at school for dyslexic students should not depend on their being lucky enough to be assigned a dyslexia-aware teacher. Secondly, success at school for all students can be greatly enhanced by personalised learning, making it in everyone’s best interests to embrace this approach. Thirdly, dyslexia impacts the student beyond their reading and writing lessons. It can present challenges in any class or situation.

Importantly, the type of personalised, or individualised, learning strategies recommended as part of the ‘notice and adjust’ philosophy also lie at the foundation of the National Curriculum – which both challenges and gives permission to schools to do things differently and teach more creatively. Notice and adjust is based simply on noticing students who are having issues and adjusting the teaching to fit.

### **Classroom adjustments make a difference by:**

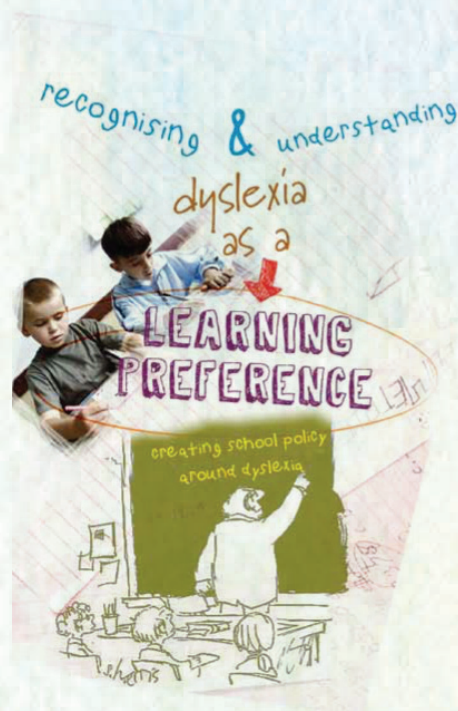
- Demonstrating empathy, respect and understanding of students’ personalised learning needs
- Being proactive and building individual relationships with students
- Identifying the various social and learning needs of children/ students coming into school who don’t easily access learning
- Keeping these children/ students at school: happy and achieving
- Promoting and supporting self-efficacy
- Building home and school partnerships
- Ensuring the transition from preschool to school and from primary school to intermediate and high school is as successful for the child/ student as possible
- Reframing benchmarks and expectations for dyslexic children to take the stress out of learning for children/ students and their families

## Classroom adjustments – What's involved?

In a 'notice and adjust' teaching paradigm, 'notice' refers to the early identification of students in the classroom who are having difficulty learning via traditional methods. This is a process which may involve both careful observation of students to distinguish dyslexia in the classroom; creation of parent partnerships; and, if necessary, formal screening. Many adjustments can then be made to immediately improve the learning environment, including applying personalised learning and accepting alternative evidence of achievement.

Personalised learning includes strategies based on developing comprehension through use of context, syntax and grammar, and looking at areas such as organisation of ideas, planning skills, learning to remember, raising self-esteem and valuing emotional intelligence. For dyslexic students, who think in more visual and creative ways than neurotypical word-based thinkers, the ideal approach is multi-sensory – with work presented and accepted in visual forms such as video, internet, mind-maps and graphics.

A full range of adjustments is available in the implementation section of this booklet.





## Classroom implementation – Notice

### Noticing dyslexia in the classroom

Teachers have a vital role to play in identifying dyslexic, and it is typically the school environment where dyslexia is first picked up.

### Signs to look out for, usually apparent after a year at school, include:

- Challenges with visual and/or auditory sequential working memory
- Struggling to make links with phonological awareness
- Difficulties with making letter/sound links, spelling common words and segmenting and blending sounds
- Issues with learning sequences eg. days of week
- Fine motor coordination may be problematic, eg. tying laces, doing up buttons
- Good oral capability but difficulties, including behavioural ones, when requested to complete written exercises
- Letters or numbers reversed or confused b/d/p/q, n/u, 13/31
- Problems with labels, rhymes, sequences
- Spells/reads on one line but not on the next
- Quick thinker/doer, but not when given instructions
- Enhanced creativity
- Aptitude for constructional/technical toys
- Being slower to process and needing repeated exposures to retain learning
- Retrieval issues – learns something one moment, gone the next
- Large gap between oral and written work
- Failure to complete school work
- Tiredness
- Poor sense of direction – difficulty telling left from right
- Poor execution of work and avoidance of tasks – may be the class clown!
- Negative attitude and lack of motivation
- Lack of concentration
- Difficulties with peers and group work
- Low self-esteem and unrealistic goals
- Poor attitude to school

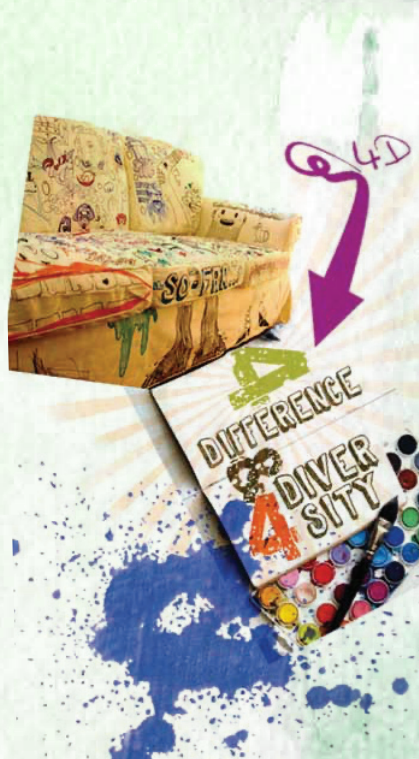


## Classroom implementation – Notice

It is important to note that all lists must be viewed against a benchmark of ability appropriate achievement in other areas. This embodies the principle of “unexpected difficulties” due to dyslexic learning differences, rather than across-the-board learning difficulties due to “global delay”.

Students with global delay tend to learn most things at a slower rate and require more repetition whereas students with dyslexia usually have difficulties in specific areas. Also it is not advisable to rely on lists as some form of “identification checklist”. This is because some behaviours can be more significant indicators than others. So some non-dyslexic student could score highly on a range of trivial items while severe dyslexics may have fewer but more significant behaviours.

Having said that, the below reference points – developed in the late 2000s for the UK Inclusion Development Programme for UK schools – remain relevant.



## Classroom implementation – Notice

Reading	Writing	Numeracy/ Time	Skills	Behaviour/ Concentration	General
Makes poor progress with reading	Poor standard of work compared with oral ability	Confusion with number order, e.g. units, tens, hundreds	Poor motor skills – weaknesses in speed, control, accuracy	Uses work avoidance tactics such as sharpening pencils, looking for books	Speed of processing
Has difficulty blending and segmenting. (Blending = combining individual sounds together to make one word for reading. Segmenting = breaking a word into syllables for spelling)	Produces messy work with lots of crossings out, words may be tried out several times	Finds symbols confusing $+/x$ $=/- /÷$	Limited understanding of non-verbal communication	Is easily distracted	Poor concentration



## Classroom implementation – Notice

Reading	Writing	Numeracy/ Time	Skills	Behaviour/ Concentration	General
Has difficulty with the structure of words – knowing where to divide into syllables, recognising prefixes and suffixes	Often confused by similar letter shapes e.g. b/d, p/g, p/q, n/u, m/w	Difficulty learning sequences e.g. times tables, days of week, months of year	Confusion of left/ right, up/down, etc	May appear to be 'dreaming' instead of listening	Difficulty following instructions
Difficulty with pronunciation of longer words	Poor handwriting with reversals and poorly formed letters	Difficulty in learning to tell the time, especially with analogue clocks	May be unsure of hand preference	May act as the class clown or be disruptive or withdrawn	Word finding difficulties

## Classroom implementation – Notice

Reading	Writing	Numeracy/ Time	Skills	Behaviour/ Concentration	General
Does not recognise familiar words	Spells a word several ways in one piece of writing	Poor time keeping and awareness of time passing	Has good days and bad days	Becomes very tired due to the amount of effort and concentration required (research has shown that the dyslexic brain works four times harder than the non-dyslexic brain when processing language-based information)	Forgetful of words
Poor expression, hesitant, slow when reading aloud which can lead to poor comprehension of text and losing the point of the story	Has the right letters in a word but in the wrong order	Poor personal organisation and limited abilities to set work out clearly on a page			Does not like change e.g. a supply teacher covering for the class teacher



## Classroom implementation – Notice

Reading	Writing	Numeracy/ Time	Skills	Behaviour/ Concentration	General
Cannot pick out the most important points from a passage	Written work badly set out – wanders away from the margin	Difficulty remembering what day of the week it is, birth dates, seasons, months			
Misses out words or adds words when reading text	Uses phonetic and bizarre spelling	Difficulty with concepts e.g. yesterday, today, tomorrow, above, below, etc			



## Classroom implementation – Notice

US dyslexia researcher Dr Sally Shaywitz also provides guidance on noticing dyslexia and notes clues to dyslexic learning preferences can be found in both spoken language and reading:

### Spoken language clues:

- Late speaking
- Mispronunciations
- Confusing words that sound alike, for saying “recession” when the individual meant to say, “reception
- Pausing or hesitating often when speaking
- Using imprecise language, for example, “stuff,” “things,” instead of the proper name of an object
- Underestimation of knowledge, if based solely on (glibness) of oral response

### Reading clues:

- Inability to read and retain short, high frequency words, such as; ‘that’, ‘an’, ‘in’
- Fear of reading aloud; avoidance of oral reading
- Oral reading filled with mispronunciations, omissions, substitutions
- Oral reading that is choppy and sounds like reading a

foreign language

- Disproportionate poor performance on multiple choice tests
- Inability to finish tests on time – doesn’t finish or rushes and makes careless errors; final test grade does not reflect person’s knowledge of the topic
- Messy handwriting despite what may be an excellent facility at word processing
- Extreme difficulty learning a foreign language
- Avoidance of reading for pleasure which seems too exhausting
- Requires quiet environment to concentrate on reading
- Development of anxiety, especially in test-taking situations

### Creating Teacher/Parent Partnerships

Teachers should inform parents as soon as they suspect a student has dyslexic-type tendencies. This is the most effective way to build trust and respect, and to create effective partnerships which support the child in the home and so optimise the good work teachers can do in the classroom. An acid test of a school that is working is parental confidence, and this comes as a consequence of school action and quality communication.



## Classroom implementation – Notice

Teachers do not need a formal assessment or diagnosis of dyslexia to initiate this dialogue with parents – rather, it is about noticing signs that may indicate a learning preference based on atypical thinking, and sharing these observations with parents/carers sooner rather than later. One of the things that defines a dyslexia-aware self-managing school is the willingness to proactively identify students with issues.

Dyslexia also offers support for parents and caregivers through the family and wellbeing section at [dfnz.org.nz](http://dfnz.org.nz), which also has a downloadable booklet with more guidance.

### Screening & Assessment

For the majority of students with a dyslexic learning preference, simple adjustments in the classroom will be immensely valuable in inspiring them to draw on their strengths. However some students – estimated at around 4% (compared with the conservatively estimated 10% of the population who are dyslexic) – may need additional specialist help, screening tests and small group, or one-on-one interventions, to help them make significant progress. There are many different tests available for screening such as the Lucid Rapid Test, commonly used

in schools. One-to-one interventions may include Structured Literacy Approaches, Speld and other programmes. These should be delivered by specialist teachers such as LSC's RTLBs/RTLits and SENCOs within schools. You can read more about phonics in the further resources section of this booklet.

### Official assessment

In terms of an official assessment of dyslexia, this can currently only be provided by a registered psychologist or Level C Assessor. An official assessment is no longer required by the Ministry of Education for senior students to be able to access assistance with exams in the form of additional time, reader-writer support, and use of a computer.

Instead, schools can now apply for SAC's (Special Assessment Conditions) for NCEA exams on behalf of students, based on supporting evidence. This needs to be done well in advance of sitting formal examinations, with applications required by October for the following year exams. The Ministry of Education website sets out the relevant information for schools –

**[www.education.govt.nz/school/student-support/special-education/special-assessment-conditions/](http://www.education.govt.nz/school/student-support/special-education/special-assessment-conditions/)**

## Classroom implementation – Adjust

This section outlines a range of simple classroom adjustments that can improve the learning environment for dyslexic students. What's more, because they are based on personalised or individualised learning, other students will also benefit. For example, Maori and Pacific Island students, who historically have oral cultures, may be supported to learn more effectively if the teaching is delivered in ways that are less dominated by the written word. Moreover, because the adjustments are about personalised learning, which has benefits across the board, these adjustments can be done without having to wait for an assessment or diagnosis.

Overall, this approach is about recognising that equity in education comes through delivering to a student's individual needs, rather than treating them all the same. As US president Thomas Jefferson once commented: "There is nothing so unfair as the equal treatment of unequal children." A personalised approach also lies at the foundation of the National Curriculum.

These type of adjustments can be made at any scale, at any time – according to the circumstances and resources of the school. A great resource, that expands on many of

these suggestions, is international dyslexia expert Neil MacKay's book 'Removing Dyslexia as a Barrier to Achievement' available at [www.edushop.nz/product/removing-dyslexia-as-a-barrier-to-achievement](http://www.edushop.nz/product/removing-dyslexia-as-a-barrier-to-achievement)

Students of course will have their own valuable perspectives on what works for them.





## Classroom implementation – Adjust

### Instructions

Students with dyslexia can become overloaded when receiving instructions, and find long or complicated lists difficult to process and recall. The following adjustments can make instructions easier for them to understand and retain:

- Set clear lesson objectives. Present them at the start of the lesson and refer to them frequently during the lesson, and especially at the end. Students need to have a purpose for their learning and will respond better when they know why they are doing something
  - Break instructions into small, logical 'chunks' and say things in the order they should be done, ie "Fold the paper then put it in the box", not "Put the paper in the box after you have folded it"
  - Slow down talking pace and reduce the number of words used. Repeat, slowly and clearly, if necessary
  - Smile before you give instructions or repeat them
  - Classroom studies show some teachers talk for 90% of the time – talk less!
  - Simplify sentences, don't use 30 words when ten will do
  - Avoid passive phrases, sarcasm or double meanings, ie "You need to lift your game"
- Differentiate to provide opportunities for success, and differentiate by outcome as well as task. By outcome means setting different activities based on levels of achievement. By task means setting the same activity for all students but letting them choose how to demonstrate their learning
  - Praise dyslexic students when they ask questions
  - Use simple worksheets, with large print and clear spacing
  - Check in with students soon after they commence work to ensure they've 'got it right' – if they haven't, this will ensure you put them on the right track sooner



## Classroom implementation – Adjust

### Time

The additional time it takes for a dyslexic student to access basic skills like reading and writing can leave insufficient time to demonstrate ability in other areas (eg storytelling, problem solving, comprehension). The following adjustments can help dyslexic students to succeed:

- Provide an overview of the topic at the start and define what needs to be achieved by when
- Allow extra thinking time and more time to finish tasks
- Find ways to provide increased processing time for students, eg deliberately pausing after you ask a question
- Allow more time for dyslexic students in tests
- Visual timetables can be beneficial for dyslexic thinkers
- Use digital clocks as well as analogue
- During tests, a short break in the middle, or breaking the test into two parts to be sat on different days, can be highly beneficial
- Remember that a dyslexic child often has to work exceptionally hard to try and catch up or stay with the rest of the class. Give them some down time to recharge or structure activities so they are not required to work at their maximum capacity all the time. Structure the day with easy tasks interspersed with more difficult ones

### Notetaking

Dyslexic students can find whiteboard or powerpoint presentations difficult to read from, and can easily become exhausted or fall behind if asked to copy a lot of text as part of a lesson. The following adjustments can ease or remove difficulties around notetaking:

- Minimise board copying and dictation
- If board work is needed, use black or dark markers. Avoid red or green as many students find these difficult to read
- Provide printed handouts/transcripts, but avoid A5 size as the text can be hard to read – slowing down information processing and comprehension
- Use handouts with gaps for students to fill in key ideas and draw their explanations and utilise ‘thin notes’, which are handouts containing text down the centre of the page with large margins. This offers plenty of room for ‘picture thinkers’ to draw diagrams and for ‘word thinkers’ to note or summarise main points
- Where possible, include pictures in handouts
- Avoid black text on white background – buff or coloured paper is easier to read
- Use at least 14pt font Arial, Calibri or Comic Sans, 1.5 line spacing for handouts
- Encourage the use of colour to help organise notes

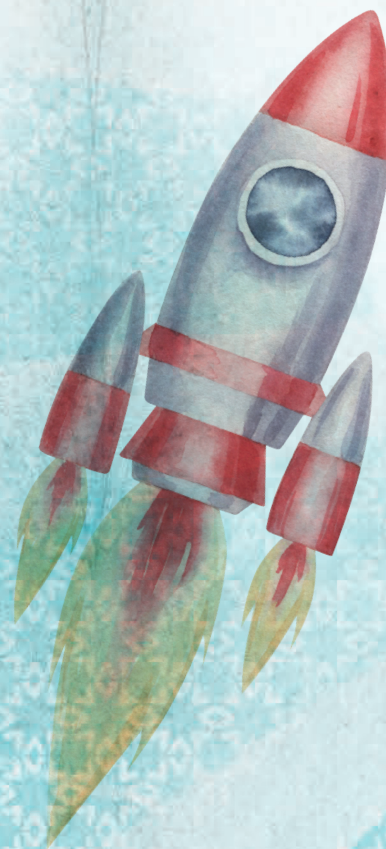


## Classroom implementation – Adjust

### Creative and multi-sensory approaches

As 'picture thinkers', dyslexic students may find information more interesting and easier to understand when it is supported by visual and creative material:

- Multi-sensory approaches work best – including visuals and colours
- Use video, internet, mind-maps and graphics
- Do quick drawings to illustrate concepts
- Use pictures, diagrams and charts and use coloured highlighters for emphasis
- Use real objects as props
- Show don't tell, for example by using role-plays
- Use wall displays and images to reinforce learnings – eg. months of year, mathematical signs, geographic locations
- Have keywords around the classroom that relate to the topics being taught – this makes it easier for students to access common words and maintain their train of thought
- Technology can be a dyslexic student's best friend, enabling them to use visual strategies or overcome handwriting or spelling difficulties. For example, laptops to word process work and reinforce numeracy skills, text-to-speech and speech-to-text apps to record and present work



## Classroom implementation – Adjust

### The classroom environment

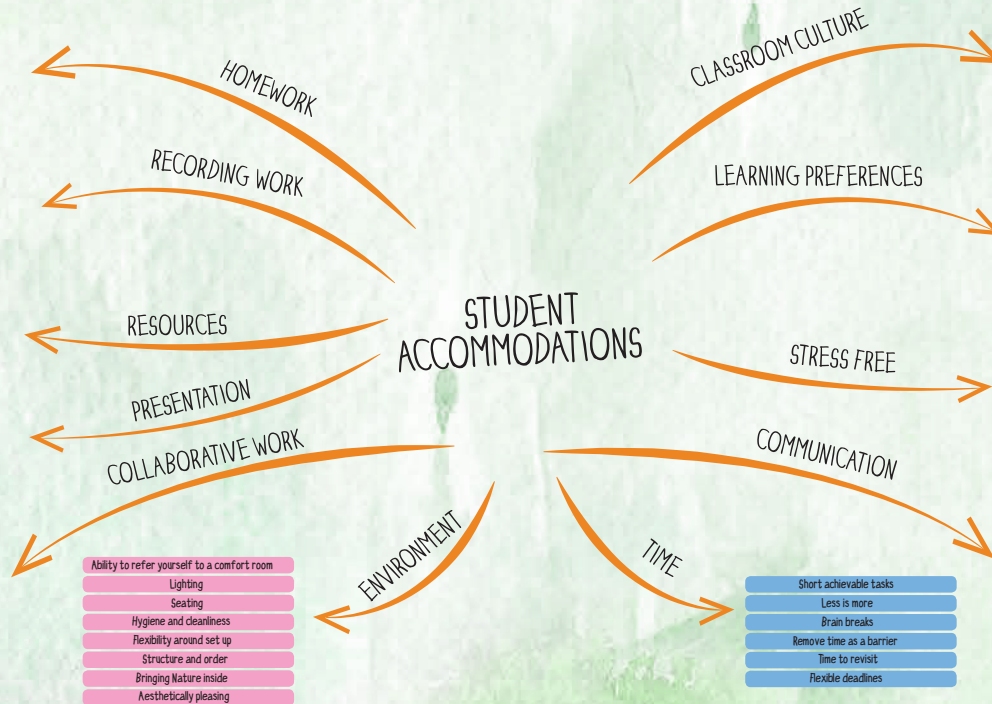
There are a number of adjustments that can improve the learning environment, such as:

- Relocate dyslexic students to well-lit areas near visual aids, but not directly under fluorescent lights as these cause visual disturbance
- Ensure noise is not a distraction
- Accept work in different formats, for example mind maps, videos, photos, diagrams, powerpoint. Use oral assessments and phonetic spelling
- As a rule, 'don't give them more of what they can't do'
- Allow students to choose which piece of writing they want assessed
- Link learning tasks to previous knowledge. This is about creating 'building' blocks which show how new things relate to previous lessons. Dyslexic processors often require additional exposure to new learning to make these links and retain understanding so that they can retrieve information and apply to other settings and tasks
- Reinforce and check understanding. This also relates to 'building blocks' and showing the relationship between learning. Students need to be clear that it is ok to ask if they haven't understood something – it is likely others will be in the same position
- Establish the purpose and build a vision of the big picture for the lesson
- Summarise key points at the end of the lesson. Revisit previous learning at the start of the lesson
- Teach a range of planning techniques to support students personalising their learning style
- Use post it notes to turn non sequential thinking into kinaesthetic flow charts/mind maps
- Use PMI planning tables and word wheels. PMI tables take the common format of plus/minus or for/ against tables and add a third column marked 'interesting'. This opens up the thinking and allows for more flexibility. Word wheels are a simple planning technique for organising ideas, with the main idea going in the middle and other ideas go on the spokes as as they come up in conversation, planning or brainstorming
- Use WALT and WILF techniques to support target setting. WALT (What are we learning today) allows teachers to make explicit the learning of the lesson while WILF (What am I looking for) tells students what to focus on
- Additional tools include highlighted lines to aid navigation, blue tack spots for punctuation, Mnemonics, and encouraging use of the 'finger' for spacing



# IS MY CHILD'S CLASSROOM DYSLEXIA AWARE?

- No homework as an option
- Stress free and meaningful
- Personalised or differentiated
- Related to prior knowledge
- Flip the classroom
- Offer alternatives to writing
- Routine (set days) timetable
- Clear instructions
- Time driven NOT task driven
- Paste information into book
- Make photocopies available
- Audio, video or photographs
- Minimise copying from board
- Encourage mindmaps, flowcharts etc
- Non traditional assessment
- Colour coded
- Visual timetables
- Well labeled
- Familiar and consistent layout
- Easily Accessible
- Bring your own device (BYOD)
- ICT available
- Print on pastel shades
- Use bold to highlight
- Create lots of space
- Plain font of suitable size
- Bullet point key info
- Thin notes
- Peer marking
- Peer tutoring
- Inquiry learning
- Flexible grouping
- Paired reading
- Scribed work



- Calm and positive ethos
- 'Have a go' culture
- Free to make mistakes
- Stress free comfortable learning
- Flexible groupings
- Good transition process
- Group by thinking not just by basic skills
- Consistent approaches to behavior management
- Everybody counts
- Let the students teach
- Foster success through learning preferences
- Alternative ways of recording
- Opportunities to present alternative evidence of learning
- Adapt tasks to suit
- Use multi-sensory techniques
- Provide challenge but with accommodations
- Embed differentiation in the classroom
- Ability appropriate task
- Time to think
- Give control and responsibility
- Encourage student voice
- Free to make mistakes
- The right to pass - e.g. don't read aloud
- Encourage self-advocacy
- Remove time as a barrier
- Mark content not spelling
- Model all learning tasks
- Take account of diverse backgrounds
- Write instructions down and leave them
- Appropriate vocabulary
- Visual prompts
- Chunk learning
- Clear and explicit instructions
- Reduce teacher talk time
- Pause for processing
- Can do attitude

## Classroom implementation – Adjust

- Catch students doing it right - praise and encourage strengths, being specific about skills and strengths
- Display students' work (sensitively) and update regularly
- Nurture a comfort zone through preferential learning which enables a dyslexic student to build up to handling discomfort, such as traditional assessments, by allowing for adjustments, time accommodations and a reader/writer for exams (ideally a reader/writer the student has met before and feels comfortable with)
- Try many ideas: not all will work!

### Reading, writing and spelling

Difficulties and frustrations around reading, writing and spelling are often the biggest challenge for dyslexic students, and can unnecessarily affect their work in other areas where they should be excelling. The following suggestions can relieve the intense pressure around reading and writing skills, freeing dyslexic learners up to show what they can achieve:

- Always explain the 'three parts of a word' – what it looks like, what it sounds like and what it means
- Don't overly focus on handwriting – neat handwriting can be difficult for dyslexic students and an obsession

- with neatness can detract from strengths in equally or more important areas. The priority is effective communication in whatever medium is being used
- When marking, feed-forward – tell them how to do it next time rather than what they've done wrong
- Don't always equate assessment with writing – there are alternative ways for a student to 'show what they know'
- When it comes to gathering evidence, remember that there are alternative ways to get it down on paper
- Promote reading for a range of purposes – and let the student choose their own reading material when the activity is about reading for pleasure
- Provide alternative strategies and media, including audio book resources
- Where appropriate, use peer tutoring, scribed work and paired reading to help dyslexic students keep up





## Classroom implementation – Adjust

### Marking

Marking is another area where simple adjustments can significantly assist dyslexic students. Consider the following:

- Mark 'target' spellings only – avoid death by deep marking! Apply an 80% accuracy standard, allowing students to 'pass' where they have made a good attempt
- Focus on big picture success, rather than word or spelling accuracy ie encourage 'thinking', not just 'reading' accuracy – in the right context 'butifull' is more descriptive than 'nice'
- Give a maximum of two tips – in positive, affirmative, doable language in order to help students understand where they are close to success
- Finally, ask the student to 'tell me something you did well/would change next time to make it even better'

### Homework

Dyslexic pupils often find homework intimidating – forgetting or not comprehending what is expected of them. Make the following adjustments around homework to improve outcomes for dyslexic students:

- Issue clear instructions and give a realistic time allocation
- Set homework that reinforces basic skills and provide supporting material – ideally, give homework as a handout
- Include the family in the communication loop. If the student and their parents are comfortable, discuss openly with the student that you are aware they are dyslexic or think differently – and ask how best you can support them
- Set homework at start of lesson and remind again at the end



## Classroom implementation – Adjust

### Self-esteem

Even more debilitating than having difficulty with basic skills can be an accompanying feeling of failure or low self-worth. The following can help:

- Remember dyslexia's greatest difficulty is self-esteem – be aware of potential issues around emotional and behavioural needs as well as self-esteem
- Emphasise strengths of student's work, with specific praise
- Develop pupils' knowledge of their own language abilities and needs, and of what to do when things go wrong
- Support target setting and celebrate success
- Encourage students to take a role of responsibility that showcases a strength that they have. If the expectation is for the child to read or give feedback to the whole class, give them warning a few days prior so they have a chance for adequate practice. Don't put them on the spot. If they are resistant do not insist
- Try to provide feedback, not failure – "criticism kills"
- Empathy is the key. When a student feels understood and supported they can be encouraged to take learning risks. From comfort to discomfort. From non-traditional / alternative educational outputs to the ability to sit traditional exams!





## Further resources

As noted in the screening section of this booklet, while the majority of students with a dyslexic learning preference will respond positively to simple adjustments to teaching, some will require extra assistance and support. This group of students – around 4% (compared with the conservatively estimated 10% of the population who are dyslexic) – may benefit from specialist help, screening tests and small group, or one-on-one interventions.

Many schools will already have specific interventions for students who have learning challenges in respect of reading, writing, spelling, maths, memory, coordination etc. Bringing a dyslexia-aware perspective to these can enhance them and create greater progress.

In addition to physical and environmental changes in the classroom, there are some dyslexia-specific learning interventions that can be useful. These need to be matched appropriately to the student's needs and schools need to ensure that they are effective.

There are many programmes (computer and non-computer based) which will help in supporting areas of difficulty. Talk to other schools about which ones work for

them. Some are expensive but can be viewed as an investment.

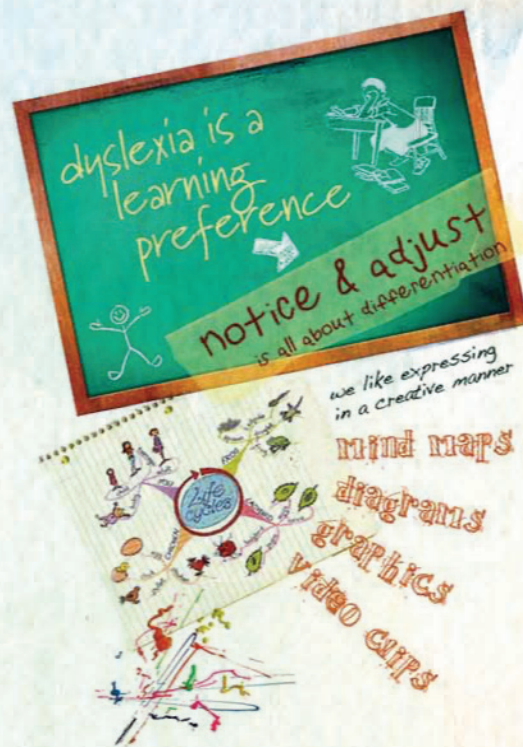
Teacher aides need to have adequate training and understanding of how best to tailor a programme if a child is to be removed for one-on-one support. If a programme is not working, more of the same does not work! In terms of personnel; LSC's, (Learning Support Co-ordinators), RTLBs (Resource Teachers Learning and Behaviour), RTLits (Resource Teachers Literacy) and SENCOs (special educational needs coordinators), are a valuable resource for schools. It can also be useful to ask a known dyslexic, maybe a parent, to come and talk to staff as a whole to share their perspective on how it is for them, their experiences and things that help.



## Further resources

Some parents opt for support from tuition offered outside the school. If possible, encourage this tutoring to take place at school, and in school time. Thus it isn't seen as a punishment by the child in having to do it in their own time. Also, the child is fresh and not tired after a day at school. Many of these interventions provide significant benefit to the student and the student's family and the dyslexia-aware classroom teacher will acknowledge this and help integrate any new learnings back into the classroom environment.

The Dyslexia Foundation website has further information and contact details for organisations which provide understanding, tools and skills to enable dyslexic individuals to address learning and other differences. You can find these under the 'Find Support' menu at [www.dfnz.org.nz](http://www.dfnz.org.nz)





## Measuring progress

When dyslexia-aware classroom practice becomes part of everyday teaching it is important to be able to measure progress. The quickest impact is likely to be seen in the quality/quantity of work produced – the evidence of achievement. So gathering ‘before and after’ work samples is an excellent piece of informal assessment for learning. This could also include taking some hard data, for example on reading and spelling levels – and redoing the tests after an allotted timeframe.

Requiring alternative evidence of achievement – for example testing understanding/recall via a mind map, storyboard or flowchart instead of a formal paragraph is often a powerful way of measuring the impact of changes in approach. Dyslexic students who may struggle to show what they know through traditional sentences and paragraphs often demonstrate ability appropriate understanding and recall of concepts and content when allowed to present in preferred ways. When this occurs it is clear evidence that any apparent problems are not with learning but the traditional assessment process.

In general, effective monitoring and tracking of dyslexic learners should be based on an awareness of what is ‘expected progress’ for each individual student set against a profile of strengths, weaknesses and learning preferences.



## Measuring progress

### Other ways to measure progress may include:

- Asking the student to rank themselves in each subject areas and also get information from them on their performance, how they feel about school, are they progressing etc
- Talking to parents/caregivers and getting their perspective on progress
- Appointing a teacher aide to prepare templates for gathering anecdotal data on progress, and to gather the data
- Monitoring attitudinal changes, including better punctuality and less absenteeism

For further professional development on dyslexia and neurodiversity in the classroom, the Dyslexia Foundation recommends the resources offered by Jenny Tebbutt from Raising Achievement.

**[www.raisingachievement.com.au](http://www.raisingachievement.com.au)**

Jenny is neurodiverse and is a parent of neurodiverse children, teacher and Past-President of SPELD NZ. She has also authored The Wobbly Kids – both teacher and parent editions.








**Dyslexia Foundation**  
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Recognition • Understanding • Action

For additional support in any of these areas, please  
feel free to contact DFNZ at [info@dfnz.org.nz](mailto:info@dfnz.org.nz)

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