

Developmental dyspraxia

A resource for educators

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Introduction

This booklet examines how dyspraxia can influence learning and provides strategies teachers can use in the classroom.

It examines key areas where students with dyspraxia may need support and features some whole class strategies that may benefit all students, particularly those with dyspraxia.

It focuses on supporting you where specialist assistance may not be available, but you are searching for ways to adapt your classroom programme to meet the diverse needs of your students.

The strategies outlined in this booklet will be most effective when used in the context of good planning, knowing your students and what makes each of them unique, setting goals, and regular inquiry into what works and what doesn't.

If you need more intensive, specialist support, look into a referral to a Resource Teacher: Learning and Behaviour (RTLB) or to your local Ministry of Education district office.

Helpful link

Visit the Inclusive Education Online Knowledge Centre where you will find a more in-depth guide on dyspraxia, as well as videos and links to student and teacher experiences.

<http://inclusive.tki.org.nz>

Developmental dyspraxia – what is it?

Developmental dyspraxia is difficulty learning, planning and carrying out coordinated movements in sequence to achieve an objective. Developmental dyspraxia is also called Developmental Coordination Disorder or DCD.

How developmental dyspraxia can influence learning

Every situation and every student is different. Students may need significant help with all day-to-day tasks or they may work independently.

Their experience will vary, depending on the nature of their disability, and whether or not it includes any sensory issues. It will also vary depending on a student's family setting and circumstances and individual factors such as age and personality.

Students with developmental dyspraxia may find it challenging to:

- ▶ move and get into position quickly
- ▶ coordinate both sides of the body and learn new motor skills
- ▶ write and form letters, dress and fasten clothing and use tools and utensils
- ▶ balance and kick a ball and avoid bumping into things
- ▶ focus, concentrate, organise their thoughts and follow and remember instructions
- ▶ make themselves understood
- ▶ organise their time and materials
- ▶ perform tasks quickly
- ▶ take part in team or group activities, especially sports.

How can I prepare for a student with developmental dyspraxia?

Start by talking with the student, their families, whānau, specialist teachers and other members of your student's team to understand your student and his or her learning potential.

You will find a student's family, whānau and specialists know the student best and will be a key source of information. Talk to them (and your student) to build a good understanding of a student's practical, emotional and learning needs.

Share with parents, family and whānau the knowledge you gain about teaching their child. Encourage them to support learning at home. Share their child's success with them. Involve them - and your student - in key decisions. Connect families and students with other people in your school community.

You may also like to consider using the Individual Education Plan (IEP) process to help you prepare and plan. The IEP process can be a good way to bring people together to plan collaboratively and doesn't always need to result in a formal IEP plan.

The most important thing is to prepare and plan well and to regularly review what you do and what's happening.

For more information on the IEP process, refer to the Ministry's IEP guidelines, *Collaboration for Success: Individual Education Plans*, available in print and online at www.seonline.tki.org.nz/IEP/IEP-Guidelines

Starting out - ideas to think about

There's no one-size-fits-all

All of your students bring a huge variety of skills, needs and interests to their learning. These differences are as unique as their fingerprints. Students want access to learning in the way that works best for them.

Know your student

Talk with the student, family, whānau, specialist teachers and other members of your student's team to come to understand your student and their learning potential. Find out about the student's interests, likes and the things that motivate the student.

You don't need a separate curriculum

Take a flexible, inclusive approach to teaching and you will find very little, if any, adaptation to the curriculum is required. Be flexible in the goals you set, as well as the teaching methods, materials and assessments you use.

Ako

Be a learner as well as a teacher. Reflect on the impact of your practice and actions.

- ▶ What is important (and, therefore, worth spending time on, given where my students are at)?
- ▶ What strategies (evidence-based) are most likely to help my students learn and participate?
- ▶ What has happened as a result of my teaching and what will I need to do next?

Plan and prepare

Talk with and involve your student, their parents, family, whānau and other specialists.

- ▶ Build a team around your student.
- ▶ Develop a good learner profile.
- ▶ Set clear goals and check in often.

It matters how you 'see' disability

Be a disability champion in your school and your classroom. See the student first (not their disability). Look at the world through their eyes. Understand how societal attitudes can create barriers for students. Design your classroom in a way that removes those barriers and works for all students and all ways of living in the world.

Teaching students with developmental dyspraxia – a framework

There is extensive well-documented evidence about the teaching approaches that consistently have a positive impact on learning.

The evidence says all students need teachers who:

- ▶ create supportive learning environments
- ▶ encourage reflective thought and action
- ▶ enhance the relevance of new learning
- ▶ facilitate shared learning
- ▶ make connections to prior learning and experience
- ▶ provide sufficient opportunities to learn
- ▶ inquire into the teaching-learning relationship.

See *The New Zealand Curriculum*, pg 34.

Creating an accessible and supportive learning environment

Accessible and supportive classrooms can be a rich teaching resource for helping students learn about diversity and positively relate to one another. They can foster student collaboration, problem solving and learning and give all students a sense they belong at school and can participate.

There are many ways you can create a more accessible and supportive school and classroom environment.

On the facing page are some key questions to think about and discuss with your students and their families and whānau.

Jacob, seven, loves reading and has a reading age well beyond his age. His verbal skills are strong too. But ask him to tell left from right and he has all sorts of problems. He also finds it a challenge to throw a ball, knocks things over a lot and can't seem to use both hands at the same time. Jacob knows everyone else finds these things easy and feels embarrassed that he doesn't. Recently he's started to lose his confidence and feel more and more frustrated by how much effort it takes him to plan for and carry out a physical task.

School environment

- ▶ Is the school environment safe for all students?
- ▶ Can all students move throughout the school grounds easily?

Classroom environment

- ▶ Are classrooms well organised and free of clutter – is there an unobstructed pathway to frequently used areas such as the teacher's desk?
- ▶ Do we need class rules to keep bags well stowed, chairs pushed in and desks tidy?
- ▶ Are desks and chairs set up well for students who find it a challenge to get into the right position to learn?
- ▶ Have all distractions in the classroom or outdoor environment been reduced, for example, noise levels to help your students hear and concentrate on what you are saying?
- ▶ Do students who need to move around to stay focused and concentrate have the opportunity to take breaks and refresh themselves?
- ▶ Can all students use all the tools and equipment in class and participate in all curriculum areas?
- ▶ Are there any students who need additional assistive technology (such as specialist classroom furniture, writing tools or technology such as a lightweight keyboard)?
- ▶ Where should students be seated so they can hear best and maintain their attention easily?

Using the key competencies to guide teaching

The New Zealand Curriculum identifies the key competencies students need to live, learn, work and contribute as active members of their communities.

These key competencies are relevant to all students and all learning areas. They include:

- ▶ thinking
- ▶ using language, symbols and texts
- ▶ managing self
- ▶ relating to others
- ▶ participating and contributing.

Three of these competencies are explored in more detail on the following pages to show how they might relate to students with developmental dyspraxia.

Teenager Mihingarangi likes school once she gets there. But she's prone to arriving late, forgetting to bring the right school books and frequently leaves her homework at home. Sometimes she struggles to recall the sequence of what's said to her in class – particularly directions. She also finds communication a struggle – she knows what she wants to say but somehow can't find the words to get her point across.

The New Zealand Curriculum key competencies

Participating and contributing

Teaching support

All students need the opportunity to be actively involved in the life of their school, the activities of their classroom and in the wider community. This includes having opportunities to contribute as a group member and make connections with others.

Many students with developmental dyspraxia will face barriers in the school and classroom related to physical movement (for example, the skills related to tasks such as writing, making things and using playground equipment). As a result, they may also feel out of place at times and find it a challenge to build friendships.

You may need to adapt the classroom setting or introduce technology for students to participate and contribute. You may also need to create opportunities for students to relate to one another, develop a positive sense of self and take part in group activities they enjoy and are good at.

The New Zealand Curriculum key competencies

Thinking

Teaching support

All students need the opportunity to use creative, critical and metacognitive processes to make sense of information, experiences and ideas. This includes using thought to develop understanding, make decisions, shape actions and construct knowledge.

Students with developmental dyspraxia may need additional support to become competent thinkers and to problem solve by actively seeking, using and creating knowledge.

Some students may find it challenging to use working memory and recall (briefly holding facts in their heads and manipulating, sequencing, organising and writing down factual information). They may have difficulty getting the sequence of the speech sounds used in words right. They may struggle to get started on or finish school work. Complex problem solving and taking a concept apart, analysing it and putting it back together may also be difficult.

The New Zealand Curriculum key competencies

Teaching support

Thinking (continued)

Keep students with developmental dyspraxia organised and on task using a range of different tools, as well as regular reminders about when to start or complete tasks. Give them plenty of support to reflect on their own learning, draw on personal knowledge and intuition, ask questions and challenge assumptions and perceptions.

Using language, symbols and texts

All students need the opportunity to express their knowledge through a variety of language, symbols and texts. Language and symbols represent and communicate information, experiences and ideas. Through language and symbols, people produce texts of all kinds, for example, oral, written, visual.

For students with developmental dyspraxia, communication may be a particular area of difficulty. For example, some students will know what they want to say but may have difficulty articulating the words to get their point across.

The New Zealand Curriculum key competencies

Using language, symbols and texts (continued)

Teaching support

For others, it may be the act of articulating individual speech sounds that is a challenge. For others, it might be the sequencing of word sounds or the words in sentences. You may also find the speech performance of students with developmental dyspraxia varies from moment to moment, which can be frustrating and affect their self-esteem and social skills.

Have students with dyspraxia break down words into syllables and practice words that are difficult for them. Also think about breaking down complex sequential tasks into smaller steps and presenting verbal information in different ways.

Give students with developmental dyspraxia the opportunities to learn the skills they need to communicate their thoughts, feelings and ideas to others. Use different strategies to build their confidence in their ability to communicate, relate to others and be valued members of a group.

Using the learning areas to guide teaching

The New Zealand Curriculum identifies eight learning areas that are important for a broad general education, including English, the arts, health and physical education, learning languages, mathematics and statistics, science, social sciences and technology.

There are five general strategies that are useful to keep in mind all the time and a range of specific strategies to consider alongside questions you may ask yourself as part of the teacher inquiry process.

All learning areas: Five general strategies

1

Adjust the classroom environment to support learning – create extra space in the class to give students an unobstructed pathway to frequently used areas like your desk and keep noise and distractions to a minimum.

2

Present curriculum content in different ways to help students retain information, build up their understanding and stay stimulated and focused – give students information verbally and visually and break down complex ideas and concepts into smaller chunks.

3

Stimulate interest and motivation for learning – focus on the pace of your communication and slow down your rate of speech. Pause to give students time to respond to you. Provide students with lots of positive reinforcement and feed forward or give instructions about how to make the next step in their learning.

4

Provide options for students to express what they know – give students the opportunity to choose how they want to communicate about a topic, for example, in writing, verbally etc.

5

Use technology – give students access to technology such as a laptop, desktop computer or iPad to develop their ideas and present their work.

All learning areas: Teacher inquiry questions and strategies

TEACHER INQUIRY QUESTION

How do I **strike the right balance** between providing students with the necessary **support** on the one hand, while helping them become more **independent** on the other?

STRATEGIES

- ▶ Observe your students carefully to decide what they can do independently, when and where.
- ▶ Find out about the student's skills and what they enjoy – use this information when you are planning classroom activities.
- ▶ Give support only when and where it is required (keeping in mind, support may vary from peer support to writing tools).
- ▶ Look at the in-class and group support you can provide, rather than going for individual or one-on-one support.
- ▶ Support your students to transfer what they've learned and can do (for example, their established skills) to other learning situations.
- ▶ Plan (where relevant) to gradually reduce or change the support available to a student over time in line with his or her skills acquisition.

TEACHER INQUIRY QUESTION

What are some of the different ways I can encourage students with developmental dyspraxia to **participate** and **contribute** in the classroom?

STRATEGIES

- ▶ Encourage open communication – listen to any suggestions from your students about how they might best complete an activity. Sometimes they may want to give things a go and in other situations they might prefer to have some help.
- ▶ Involve everyone in your class in group discussions that lead to group collaboration and problem solving.
- ▶ Provide students with lots of positive reinforcement and feed forward or give instructions about how to make the next step in their learning. Keep your instructions brief, clear and succinct.
- ▶ Provide a range of options for the student to express what they know. Students who find it hard to get their ideas across in words may prefer to use digital tools and visual aids such as a photoboard, digital presentation, visual schedules or a poster to communicate their thoughts and understanding.
- ▶ Provide step-by-step instructions (preferably in writing) to help students learn new skills.
- ▶ Spell out what students are about to learn and how it links to what they are learning at the time by saying ‘We are practising starting and stopping – so you’ll know how to race in the school running sports.’
- ▶ Give students with developmental dyspraxia plenty of alternatives to playing team games or taking part in tasks they find particularly challenging.

TEACHER INQUIRY QUESTION

How can I support all students to **learn about diversity**?

STRATEGIES

- ▶ Create a collaborative classroom and environment where you give students with developmental dyspraxia an opportunity to share what they know and can do.
- ▶ Give students the opportunity to express their opinions and take their opinions into account.

TEACHER INQUIRY QUESTION

What **personal information** do I need to know about my students and who should I **share** this with?

STRATEGIES

- ▶ Talk to your students and their families to be clear about what information they want shared and who it can be shared with.
- ▶ Find out if a student needs support with personal tasks such as using the toilet.
- ▶ If your student uses specialised equipment, find out who needs to know about it.

TEACHER INQUIRY QUESTION

How can I **organise** the **classroom** to support students?

STRATEGIES

- ▶ Give students extra time to complete a task or do things like their peers, for example, organise their things.
- ▶ Encourage young students to place their work in a tray or on a desk clearly marked with their names and photos to allow them to find their work easily.
- ▶ Colour code the corners of books with a corresponding list on the desk lid so that students can find the correct book easily and quickly (this can be especially useful when desks are messy or books are covered in the same paper).
- ▶ Encourage students with developmental dyspraxia to self-manage, stay focused, organised and on track with learning using tools such as a digital calendar. Set it to silently vibrate at particular intervals as a reminder to complete a particular task or to transition to another class or topic.
- ▶ Give students a book rest to read or copy information from a book.
- ▶ Think about putting a daily organiser or plan on the board to help students anticipate what is coming next, and become independent and self managing.

TEACHER INQUIRY QUESTION

How **can I improve** the way I **communicate** with students?

STRATEGIES

- ▶ Prompt students (verbally) to listen, for example, you might say, 'You now need to listen very carefully because I am going to tell you what you have to do. Then, I'm going to ask you to repeat what I said.'
- ▶ Focus on the pace of your communication and slow down your rate of speech.
- ▶ Pause (mentally count to five) to give students time to respond to you.

TEACHER INQUIRY QUESTION

What **resources** would work best for students with developmental dyspraxia?

STRATEGIES

- ▶ Consider using a range of teaching and learning resources in the teaching and learning process, for example, videos, YouTube clips, podcasts and audio books, as well as written materials.
- ▶ Encourage students to make handy reference aids that feature common subject facts that a student can refer back to throughout the school day. You may want to develop these into classroom posters.

TEACHER INQUIRY QUESTION

How can I **support a student's thinking** across all the learning areas?

STRATEGIES

- ▶ Develop self-help skills by giving students who struggle with memory and recall the option of using additional reference and organisational tools when presenting information.
- ▶ Encourage students with developmental dyspraxia to develop a daily plan or 'to do' list – you might encourage young students to keep lists short and use visual symbols to represent their tasks on a daily schedule.
- ▶ Teach students how to use graphic organising software and tools such as mind mapping to help them make abstract ideas concrete, visually organise their ideas and remember important or key facts.
- ▶ Ask students to break down a bigger piece of work into manageable tasks and to track their progress towards achieving a final goal.
- ▶ Consider helping older students to develop an action plan outlining the key steps required to complete difficult tasks or large assignments.

TEACHER INQUIRY QUESTION

How can I support students to **receive and process ideas and information**?

STRATEGIES

- ▶ Highlight new words, phrases and concepts on the board or provide them to students as handouts.
- ▶ Teach sequencing skills to help students retell events they have been involved in or texts they have listened to. Use mind maps to organise ideas sequentially or around key themes.
- ▶ Practise recall and present information in a range of ways to help students develop and organise their thinking.
- ▶ Teach students to rehearse (and recall and retain) what they're learning, for example, by silently writing stories in their heads, going over their spelling or practising new words repetitively.
- ▶ Finish lessons with a recap session. You might say: 'Let's remember what we did today. There was... and... What are some of the things you enjoyed the most? What are the five key things you will remember from this lesson?'

TEACHER INQUIRY QUESTION

What can I do to help students with developmental dyspraxia develop their **understanding of the subject**?

STRATEGIES

- ▶ Use visual resources and supplement your stories with visual resources such as pictures and symbols – encourage your students to do the same.
- ▶ Give students the option to learn about specific concepts such as numbers and maths by physically touching and handling multi-dimensional shapes and objects.
- ▶ Present information in a range of ways to help students retain information, build up their understanding and stay stimulated and focused.
- ▶ You might want to encourage students to learn using a multi-modal approach involving several senses – touch, sight, smell, hearing and taste.

TEACHER INQUIRY QUESTION

How can I increase **student engagement** with a text-based activity?

STRATEGIES

- ▶ Give students opportunities to hear and retell familiar stories – use props to build students' confidence in telling the story and engaging their audience.
- ▶ Use peer review by getting students together in small groups or pairs to discuss their understanding of the learning activity.
- ▶ Use coloured stickers (for example) to show a student where to start reading or writing from (using a green sticker) and where to stop (using a red sticker).
- ▶ Encourage students to reflect and build self-awareness of what they're learning to gain greater control over it.

TEACHER INQUIRY QUESTION

What are some of the **different ways** I can help students develop their understanding of the **structure and organisation of texts**?

STRATEGIES

- ▶ Model the use of visual resources such as diagrams, pictures and symbols to support recall of information.
- ▶ Use recapping to summarise ideas in a conversation and to give students the chance to rethink and catch up (if they have lost track).
- ▶ Teach students how to use mind maps to develop their ideas and help them plan.
- ▶ Use turning back as a strategy. Go back to students in a conversation or discussion and ask them to recall what others have said. Ask them to explain their thinking.
- ▶ Consider music, dance and movement as other ways of expressing or exploring the structure and organisation of ideas.

TEACHER INQUIRY QUESTION

How can I increase **student engagement** with a **numeracy-based activity**?

STRATEGIES

- ▶ Use multi-goal activities, for example, consider using games and physical education lessons to strengthen students' physical ability as well as their understanding of numbers – teach times tables by getting a student to count in twos as he or she bounces a ball.
- ▶ Use science or technology lessons to reinforce maths concepts such as shapes, weights, measuring volume and length.

TEACHER INQUIRY QUESTION

How can I **reduce the amount of writing** students need to do within each learning area?

STRATEGIES

- ▶ Be clear about the purpose of writing in your lessons.
- ▶ Ask yourself, 'What is my goal?' 'Am I asking for handwriting legibility or am I asking my students to express their knowledge in writing?' 'How important is neatness?'
- ▶ Ask yourself: 'What's the priority goal with this task? Is copying the date at the top of the page essential to the handwriting task?' 'Is it a good use of the time?' Talk to your student about what makes writing easier for him or her.

TEACHER INQUIRY QUESTION

How can I support students to **manage themselves**?

STRATEGIES

- ▶ Give students time to dress for physical education classes.
- ▶ Suggest parents use something visual, for example, coloured thread or a label inside a student's clothing and shoes to indicate right and left.
- ▶ Would students find it less tiring and difficult to keep up if you slowed the pace of your instructions or gave them additional time to complete their work?
- ▶ Make it okay for all students to stand up briefly or get a drink when they need a break.

TEACHER INQUIRY QUESTION

How can I help students prepare for **changing schools** and **leaving school**?

STRATEGIES

- ▶ Plan well ahead for students changing schools or moving on to secondary school.
- ▶ Talk to the Head of Learning Support at the student's new school to find out about the learning environments they will work in.
- ▶ Prepare students by giving them an opportunity to spend time in their new school, meet their teachers, other students and visit the classrooms they will be spending time in.
- ▶ Consider assigning a buddy to a young person making the transition to secondary school.
- ▶ Ask the student what their concerns are, and their ideas of the best ways to support them during transition.
- ▶ Encourage students to practise the skills needed in their new setting, for example, finding their way around the workplace, reading the bus timetable etc.

TEACHER INQUIRY QUESTION

What **tools or materials** might help lessen the writing required?

STRATEGIES

- ▶ Consider giving students the option of using assistive technology in place of having to write with a pen or pencil. Avoid letting a student struggle with handwriting where there is little evidence of it improving.
- ▶ Use worksheets that students can fill in (as alternative to asking them to write notes).
- ▶ Suggest students present what they know and can do using video recordings or as a PowerPoint presentation.
- ▶ Let students use a date stamp (as an alternative to writing the date).
- ▶ Try different types of paper (for example, paper with highlighted margins or lines, colour coded paper for letter sizing, graph paper for lining up numbers and letters).
- ▶ Try a variety of writing tools (for example, ergonomically-designed pens/pencils, gel pens, weighted pencils/pens).
- ▶ Use pencil grips.
- ▶ Group tools together so they are easily managed, for example, exercise books and pencil case held together by holes and binder.
- ▶ Explore the range of assistive technology options available, for example, computer software that provides word prediction.

Student examples

Here are two practical examples of how you might put some of the ideas outlined in this resource into practice. One focuses on primary school, the other looks at a student in the secondary context.

Primary school

Olivia is six and loves 'girly things', wearing party dresses and playing with dolls. She especially likes anything to do with Barbie. Olivia likes singing and dancing too.

School can be a stressful place for Olivia. Olivia talks in long sentences, but sometimes her speech doesn't sound quite right. Olivia's parents and teacher can understand most of her speech, but her speech sounds are imprecise and her vowels can sound distorted. Her mum

has heard other children commenting about Olivia's 'funny' speech.

Olivia doesn't get frustrated about her speech, but she does get anxious and upset about her handwriting skills compared to her peers. She is aware that she has difficulty forming letters and other children in her class can achieve this more easily and quickly. Sometimes in the classroom she bumps into things and outside she is cautious about using the playground equipment.

Olivia the student

- ▶ Develop goals that increase Olivia's participation in functional skills.
- ▶ Use Olivia's interests in Barbie and doll play and existing skills in singing and dancing.
- ▶ Whenever possible, involve Olivia in decisions around choice of activities.
- ▶ Be alert to any signs of anxiety that Olivia may show.

Olivia's learning environment

- ▶ What type of changes do you need to make to the classroom environment?
- ▶ Is Olivia's desk positioned so she has a clear path to places she needs to access?
- ▶ Are classroom resources, for example, scissors, crayons, computer, easily located in the classroom?
- ▶ Are any different or modified resources needed, for example, adapted scissors, fat pencils, dress up clothes?
- ▶ Are any modifications needed in the playground?
- ▶ Do you need to modify any activities to ensure that Olivia can join in?
- ▶ Do you need to modify any task expectations so Olivia can achieve?
- ▶ Would music and rhythm help Olivia to learn?
- ▶ Be prepared to allow Olivia extra time to complete activities.
- ▶ Consider having a buddy coach/demonstrator for Olivia to follow when she is using playground equipment.

Teaching Olivia

- ▶ **English (reading)** – Encourage Olivia to use intelligible speech by focusing on letter-sound correspondence and paired reading.
- ▶ **English (writing)** – Provide Olivia with opportunities for regular handwriting practice in letter formation and encourage Olivia to use the class computer to record ideas.
- ▶ **Social sciences (news time)** – Encourage Olivia to use a visual prompt, for example, a photo, an item from home or a bus or train ticket to focus her attention and support her verbal skills.
- ▶ **Technology (art and craft)** – Support Olivia to develop her fine motor skills by colouring in shapes, painting with fine brushes, cutting shapes and using playdoh.
- ▶ **The arts (music and movement)** – Encourage Olivia to join kapa haka group and incorporate singing and rhymes into teaching activities.
- ▶ **Health and physical education (in the playground and gym)** – Support Olivia to practice using playground equipment, honing her gymnastic skills and making her way around obstacle courses.
- ▶ **Play** – Encourage Olivia to develop friendships through dress up, doll play opportunities, singing and dancing.

Secondary school

Andrew is a Year 10 student who attends his local college. He gets on well with his peers and is extremely confident and competent with computers and anything to do with digital technology.

Transition to a large secondary school has been difficult for Andrew. He has become disoriented at school and struggles to choose the most direct route to his next class. Andrew also finds it difficult to remember his weekly timetable, so he often arrives at the wrong class or arrives late to class, which frustrates his teachers. Andrew's teachers say he often turns up without the correct books or equipment or having lost work from the previous lesson.

Andrew does not enjoy subjects that require a lot of writing. He finds handwriting takes too much concentration and coordination. He gets frustrated that he can't keep up with the class when working on a written task, so gets annoyed and angry with those around him.

While Andrew enjoys science, he gets embarrassed handling the lab equipment and has broken a number of things by dropping them. In the science lab, he finds it hard to coordinate his body when balancing on a high stool and manipulating lab equipment at the same time.

Andrew the student

- ▶ Develop strategies that support Andrew to manage his own learning goals.
- ▶ Use Andrew's interest in computer technology and mathematics to support and motivate him.
- ▶ Encourage Andrew to monitor and manage his own frustration levels. Discuss strategies available to him if he feels he needs to take a break during a lesson.
- ▶ Whenever possible, involve Andrew in discussions about his progress and his preferences for additional classroom supports. Keep Andrew's future aspirations and career pathways in mind when supporting him to select subject choices for NCEA Level 1.
- ▶ Provide Andrew with an electronic version of the school diary or planner and map that he can upload on his iPad to remind him of his timetable, class location, homework tasks and additional school requirements, for example, the fact he needs a permission slip for the school visit to the planetarium.
- ▶ Consider applying to the New Zealand Qualifications Authority for a reader writer to help Andrew complete exams and prepare for NCEA.

Andrew's learning environment

- ▶ Think about any modifications you could make to your class or school environment that would benefit Andrew, as well as other students.
- ▶ Give students a range of seating options suited to students with different physical needs.
- ▶ Provide written copies of lessons that repeat your instructions and aim to help students recall specific tasks.
- ▶ Present learning tasks in a range of formats and give students alternative methods for demonstrating what they know and can do, for example, they could present their work orally, visually, or by using digital technology.
- ▶ Intentionally model the use of a school diary or digital planner to teach Andrew and his peers organisational strategies and timekeeping skills.

Teaching Andrew

- ▶ **English** – Allow Andrew extra time for completing academic tasks that require writing or consider allowing Andrew to record his work in an alternative format, for example, as a digital recording or visual display.
- ▶ **Science** – Create a whole-class buddy system so that Andrew can work with another student to complete science activities and experiments as a shared task. Allow students to stand at the science tables while doing experiments if they choose to. Provide planned movement breaks.
- ▶ **Health and physical education** – Provide Andrew with opportunities to practice skills before he is required to participate in a class game or activity or provide alternative responsibilities during sport activities that are particularly challenging, for example, recording the score or resetting equipment. Acknowledge that Andrew’s coordination and skills may vary from one day to the next depending on his energy levels and confidence.

Useful contacts and resources

boxofideas.org/index.php – tips and ideas on primary and secondary school teaching and learning from the University of Wales.

dyspraxia.org.nz – New Zealand dyspraxia support group.



<http://inclusive.tki.org.nz> –
Ministry of Education's Inclusive
Education Online Knowledge Centre



For more information

For information about services and support available to children with special education needs, visit **www.education.govt.nz** [search word special education].

For more specialist classroom, teaching and curriculum resources, visit the Te Kete Ipurangi website **www.tki.org.nz**

Replacement copies may be ordered from Ministry of Education Customer Services, online at www.thechair.minedu.govt.nz by email: orders@thechair.minedu.govt.nz or freephone 0800 660 662, freefax 0800 660 663 Please quote item number 16120

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How dyspraxia can influence learning

CHALLENGES

- ▶ Moving and getting into position quickly.
- ▶ Coordinating both sides of the body and learning new motor skills.
- ▶ Forming letters, dressing and fastening clothing, using tools and utensils.
- ▶ Balancing and kicking a ball and avoiding bumping into things.
- ▶ Focusing, concentrating, organising thoughts and following and remembering instructions.
- ▶ Processing thoughts into language and articulating speech clearly.
- ▶ Organising time and materials.
- ▶ Performing tasks quickly.
- ▶ Taking part in group activities, especially sports.

Download
and keep as
a handy
reference

TEACHING OPPORTUNITIES



Present curriculum content in different ways

- ▶ Use repetition, linking learning to students' experiences.
- ▶ Teach sequencing skills to help students retell events they have been involved in or texts they have listened to.
- ▶ Highlight patterns, critical features, big ideas and relationships using visuals, mind maps, 3-D manipulatives, outlines, flow charts and real objects.
- ▶ Use multi-modal approaches involving several senses.
- ▶ Use turning back or recall to go back to conversations and what was said.
- ▶ Finish lessons with a recap session.
- ▶ Record homework instructions and give a verbal instruction.



Use technology and equipment

- ▶ Teach students to use graphic organisers and tools such as mind maps.
- ▶ Use a digital timer set to vibrate at particular intervals to remind students to complete a task or transition to another activity.
- ▶ Try a variety of writing tools, types of paper, lined paper and pencil grips.



Stimulate interest and motivation

- ▶ Provide options for students to express what they know, letting them choose how to communicate their learning – in writing, verbally, or visually.
- ▶ Encourage organisation and focus with checklists and verbal prompts.
- ▶ Remind students when to start or complete tasks.
- ▶ Provide instruction in short segments and break complex tasks and instructions into smaller chunks.
- ▶ Speak slowly and give students time to respond.
- ▶ Provide alternative activities to team games.
- ▶ Allocate additional time to complete tasks.
- ▶ Use coloured stickers to show students where to start reading and where to stop.
- ▶ Encourage students to make handy reference aids that feature common subject facts that they can refer to throughout the day.
- ▶ Provide students with a checklist with tasks broken into smaller segments. Highlight key parts of the task.
- ▶ Before beginning a task, have students explain their understanding of what they are doing.
- ▶ Give positive feedback to students who start promptly.
- ▶ Check on student progress frequently.



Adjust the classroom environment

- ▶ Use charts, visual calendars, colour-coded schedules, visible timers and visual cues to increase the predictability of regular activities, transitions between environments and activities and changes in discussion topics.
- ▶ Keep classrooms organised and free of clutter.
- ▶ Label key areas of the classroom and resources with visual and text labels.
- ▶ Reduce classroom noise and distractions.
- ▶ Provide regular opportunities for physical movement.
- ▶ Give students time to dress for swimming or physical education classes. They may need to start before their peers to be ready on time.
- ▶ Suggest that parents use something visual marked on clothing and shoes to indicate front and back and right and left.
- ▶ Colour code the corners of books with a corresponding list so that students can easily find the correct book.