

**Principal            Sabbatical            Report**

**Early Intervention in Helping Children with  
Dyslexia in Literacy**

**Developing a Dyslexia Friendly School**

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## **Acknowledgement**

I wish to acknowledge the Board of Trustees of Glendowie Primary School for supporting my application for this sabbatical project in terms of time and financial support.

The Board have recognised the need to support all learners in their learning and have seen the importance of leadership around initiatives, programmes, and good practice as having great benefit to our school in the future.

My thanks also to the Senior Management of Glendowie Primary School for their leadership during my absence.

I acknowledge also the number of wonderful educators for their willingness to share their ideas, data, resources and time during this sabbatical. Their commitment to their students who have learning difficulties and differences is exemplary.

My thanks to the Ministry of Education for granting my sabbatical and funding an Acting Principal to manage and lead the school in my absence.

## **Executive Summary**

This report covers the interventions to support students with dyslexia. The information gained was from visiting a range of 10 overseas schools, including dyslexic schools, state schools, and independent schools. Further information was gained from discussions with teachers and educators, reading about dyslexia, and from hearing quality practitioners, educators and experts in the field of dyslexia at the International Dyslexic Conference.

The implications and conclusions will have implications for Glendowie Primary School as we move forward in looking at ways to become a more dyslexia aware and friendly school, and as we support our students with their learning difference through effective teaching strategies and supporting resources.

## **Purpose**

The purpose of this report is:

- to look at early intervention strategies for dyslexic students;
- to create a dyslexia friendly and aware school;
- to identify resources and programmes for teachers to support their dyslexic children.

**This report does not evaluate the various methods for diagnosing dyslexia, nor the wide range of assessments that are used to support the intervention programmes, nor the analysis and function of the interactions of the brain.**

## **Background**

The application for sabbatical was seen as an opportunity to take time to reflect, learn, maintain, confirm, discover, and rejuvenate. It was an opportunity to “grow” my learning around an area that had a strong personal interest; to give further support to our learners with their learning differences; to support our teachers with teaching and learning strategies around dyslexia and to ensure our programmes, interventions and resources meet the needs of our learners.

Previous learning around dyslexia had included attending workshops on the Davis learning strategies. I used these strategies to teach a small group of dyslexic students in 2009.

Another very worthwhile workshop was by Neil MacKay on ways of supporting dyslexic students. His book, “Removing Dyslexia as a Barrier for Achievement,” is a wonderful resource for teachers.

A third course/workshop I attended was taken by Dr Jean Schedler on the Sunday System. (based on the Orton-Gillingham method). I implemented this system with small groups of children, four afternoons a week in 2009. After this I trained a Teacher Aide to support this programme for 2010.

Further courses on phonemic training meant that with the support of the RTLB we implemented into the school a withdrawal intervention Junior and Senior Phonemic withdrawal programme, a ten week class room programme on Phonemic Awareness, Smart Words for Year 1, and the Fitzroy Reading Programme Year 1.

Parents regularly expressed concerns about children who were experiencing learning difficulties in literacy and the possibilities of dyslexia were often raised. Numerous parents provided expert reports confirming their child had dyslexia. These concerns needed to be considered.

### **Requirement to meet the National Administration Guidelines (NAG) and our School Charter Goal**

I recognise that the Government priorities around NAG 1 and NAG 2A, together with our school charter statement, needed to be continually reviewed and addressed.

#### **NAG 1**

(c) on the basis of good quality assessment information, identify students and groups of students:

- i. who are not achieving;
- ii. who are at risk of not achieving;
- iii. who have special needs (including gifted and talented students); and
- iv. aspects of the curriculum which require particular attention;

(d) develop and implement teaching and learning strategies to address the needs of students and aspects of the curriculum identified in (c) above;

## **NAG 2A**

(b) report school-level data in the board's annual report on National Standards under three headings:

- i. school strengths and identified areas for improvement;
- ii. the basis for identifying areas for improvement; and
- iii. planned actions for lifting achievement.

## **Glendowie Primary Charter Statement-School Goal**

To enable students to develop the competencies, knowledge and skills to become life-long learners with the ability and confidence to adapt to change and accept challenges.

## **Definitions of Dyslexia**

There are many definitions of dyslexia. It is expected that teachers will take from the definition as much as they are able to absorb.

- Dyslexia is “A specific learning difference which, at any level of ability, may cause unexpected difficulties in the acquisition of certain skills” (Neil MacKay).
- Dyslexia involves an unexpected and persistent difficulty in learning to read, write and spell, that cannot be explained by other factors (Ministry of Education).
- Dyslexia is a specific learning disability that is neurological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge. (Adopted by the IDA Board, November 2002.) This definition is also used by the National Institutes of Child Health and Human Development (NICHD), 2002.

## **Activities Undertaken During the Sabbatical**

### **1. Visits to the following dyslexia schools:**

Fraser Academy	Vancouver
Hamlin Robinson	Seattle
Park Academy	Portland
New Horizon Academy	Las Vegas
New Way Independent School	Phoenix

### **2. Visits to other schools with a particular focus of interventions:**

Settlers Point	Sonday System	Phoenix
Boulder Creek	Sonday System	Phoenix
Fitzroy Community School	Fitzroy Programme	Sydney
Tyndale Christian School	Fitzroy Programme	Sydney
Derinya Primary School	Lexia programme	Melbourne

### **3. Conference attendance:**

International Dyslexia Association 61st Annual Conference Reading, Literacy and Learning in Phoenix, Arizona

### **4. Course attendance:**

“Switch on to Spelling” by Joy Allcock (2006)

### **5. Key readings:**

“The Gift of Dyslexia” by Ronald Davis (2006)

“Removing Dyslexia as a Barrier to Achievement” by Neil MacKay (2006)

“About Dyslexia” by Ministry of Education (2008)

“Ten in Every Hundred” by Meg Porch & Mary Gilroy (2005)

## **Methodology**

- Contact with schools
- Discussions with teachers
- Readings
- Interviewing educators about dyslexia
- Attending an International Dyslexia Conference
- Investigating new resources and technologies
- Collating information and writing up findings
- Resourcing new initiatives
- Sharing the final report

## **FINDINGS**

### **General findings regarding NZ teachers**

- Many teachers are not able to describe what dyslexia is.
- Many teachers are not able to define and give descriptions of dyslexia.
- Most teachers have had no training in teaching students with dyslexia.
- Most teachers did not know a range of specific strategies that would help dyslexic students.
- Most of the NZ teachers know what good literacy practices are and are using good practices around evidence based practices and feedback.
- Most teachers use differentiated learning and also grouping children in reading ability groups.
- Most teachers have not seen, or read, the Ministry of Education book, “About Dyslexia.”
- Most schools have a combination of in-class support, and withdrawal programmes, and some had interventions with the RTLB and RTLit.

## **General findings regarding teaching practices observed that were not suited to our NZ schools**

- Many schools showed an enormous focus of time and specialist support working with average and often highly intelligent dyslexia students in withdrawal situations. This would be very difficult to resource in NZ schools and takes away from the focus on developing the whole child across the curriculum while catering for their strengths and weaknesses.
- Testing, testing, testing by specialists. Unable to resource this and also recognising this relates to only the weakness of the students. Through good observations, feedback, and ongoing assessment schools can in most cases have an understanding of where and how their students learn. It is recognised however, in the small number of severe cases of dyslexia, outside testing by trained and qualified personnel may give a more detailed picture of the student's needs, which can then form the basis of their IEP.
- There tended to be a focus away from good interactive classroom teaching using multisensory methods, and expecting that withdrawal of students by teachers/aides will fix the problem i.e. not recognising shared responsibility, as students spend 90% or more time in normal classroom settings.
- Interactive whiteboards being controlled by the teachers. This tool needs to be used by dyslexic students so they engage in their learning using their auditory, visually, and kinaesthetically learning preferences.
- Students seated in very formal classroom placements. Dyslexic students need to engage easily with other students and the teacher, and to be able to move to suit their learning and to learn kinaesthetically.
- Text book learning, showed all the children at the same level and using the same text. Dyslexic students often need to have texts which are simpler in design, and they need to learn using a range of modalities. Differentiated learning is vital.
- Lack of multisensory materials in classrooms, especially in mathematics and literacy.
- A lack of differentiation within group teaching and classroom teaching, together with emphasis on whole class teaching. Variable groups, peer grouping, working in pairs, individual work etc. was not often observed
- Classrooms which were not literacy rich in terms of resources and had little evidence of children's own work displayed.
- Very little evidence of a range of differentiated assessment to show the learning and strengths of the dyslexic student.
- Very little evidence of strategies being used to support the dyslexic student within the classroom which had been identified by the teacher and the student as learning supports.

## Specific findings

### 1. Some examples of early intervention strategies for dyslexic students in literacy:

- Early identification within the first 6 months of teaching or at the end of the first year when achievement gap is small. This identification can be through day to day observations, (guidelines can be found in the MOE booklet, 2008, p6) formal assessment such as the observation survey, (MOE booklet, 2008, p17, shows things to look for). The earlier a child with dyslexia is identified and given appropriate support, the less severe their problem will be (MOE, 2008).
- The dyslexic student will need to receive appropriate instruction to meet their needs and support their learning developmental stage. This may also require early intervention before reading and writing problems become too established. This may include in-class teacher aide support, in-class support programmes (Glendowie Primary uses Smart Words A.) The Smart Words Foundation Skills include: auditory skills, visual skills, motor skills, concepts about print, language skills, and memory skills. There is a screening test to support the placement of children against the skills.
- The Fitzroy Reading Programme is used in our Year 1 classes. This is a systematic phonic programme supported by sequential readers that supports the phonetic stages being taught. The word skill books also reinforce the phonics being taught and provide a grammatical programme.
- Other interventions include withdrawal intervention programmes. Glendowie Primary School uses small group intensive instruction in the Souday System, (Orton-Gillingham), and the school designed, Foundation Literacy Programme. A phonemic top awareness programme is then used at Year 3 and 4 levels.
- Strong oral language programmes will enrich and provide foundations for written language and reading programmes.
- Pre-reading skills using multisensory approaches need to be secure and sequential such as:
  - ✓ Saying the alphabet-auditory
  - ✓ Naming the letters-visual and auditory
  - ✓ Seeking and finding letters using visual, auditory and kinaesthetic learning
  - ✓ Listening and responding to rhythm-auditory and kinaesthetic
  - ✓ Listening to beginning sounds and rhyming words-auditory
  - ✓ Tracing letters-kinaesthetic



- ✓ Forming letters e.g. sand tray-kinaesthetic
  - ✓ Printing letters-kinaesthetic
  - ✓ Combining words-auditory
  - ✓ Dividing words-auditory
  - ✓ Combining word parts-auditory
  - ✓ Combining sounds-auditory
  - ✓ Rearranging words-auditory
- Understanding book knowledge such as the skills of Concepts about Print in the Observation Survey assessment.
  - Dyslexic students will benefit from a structured learning programme at their level of learning. The literacy progressions will show the skills needed in reading, writing and spelling. (Joy Allcock has linked the spelling skills to the progressions.)
  - In written language the dyslexic student will need to build up their short term memory so that they can put letters together to make words and then put words into sentences.
  - Students need to build up their basic words knowledge (the most commonly used words used in the English language). These are non-picture words and often words commonly misread (approx 225 words). Dyslexic students have to build up these words so that they can improve fluency in reading and accuracy in written language.
  - Classroom should be literacy rich with ranges of readers, books, vocabulary charts, sounds and picture charts. For maintenance of dyslexic students' learning, it is important that they can see their learning reflected in print around them.
  - It is important that teachers present the phonemes to students correctly. The students should hear the correct sound and see how the mouth forms the sounds. The sounds need to be clipped as the dyslexic student will need to focus on these small units of sound which will be found in other parts of a word and not just the initial sound.
  - Students need to develop fluency and automaticity through using the Orton-Gillingham Method showing language instruction being direct and explicit, structured, sequential, and maintaining new learning through multisensory approaches, ensuring new skills are well embedded before new learning is introduced (see also Orton- Gillingham Approach). The characteristics of this approach show that learning for dyslexic students needs to be: diagnostic and prescriptive, language based, structured, sequential, cumulative, but flexible, cognitive, direct and explicit, multisensory, and emotionally sound. The multisensory approaches mean that the teaching and practising of written language provides learning that is visual, auditory and kinaesthetic. Every sound, letter correspondence will be learnt by simultaneously

seeing it, saying it and then saying and writing it, thus reinforcing the learning a number of times.

- Students need to be supported in handwriting by using a number of approaches including using small pencils for these early writers, different size paper and paper with shaded or raised line, pastel paper, and a number of approaches such as writing without tears, callirobics, skywriting etc.
- Dyslexic students need different teaching approaches but many of them are approaches which good teachers will use with students who have a range of learning needs in their classrooms.

## **2. A dyslexia friendly and aware school can be created by recognising that:**

- Dyslexia is not a disability. “Dyslexia is a specific learning difference creating unexpected difficulties in relation to ability” (MacKay, 2006.).
- People with dyslexia learn differently and can be taught to read, write and spell if they are taught in the way they learn best. Some will need small group explicit instruction. Others will need help in specific subject or skill area. Many will require individual, intensive reading therapy with instruction that begins with the basics and builds learning step by step. Ideally schools should offer a continuum of services that can address the severity of the specific problems of each person with written language difficulties (Porch & Gilroy, 2005).
- Approximately 10% of a school’s population will have various degrees of dyslexia. Schools need to recognise that dyslexic students are present in all schools.
- Early intervention is critical. Research has found that effective early interventions have the capability of reducing the expected incidence of reading failure from 18% of the school age population to 1 – 5%. (Lyon, Shaywitz, S.E. & Shaywitz, B.A., 2003).
- Early identification (of dyslexia) followed by systematic and sustained processes of highly individualised skilled teaching primarily focussed on written language, with specialist support, is critical to enable learners to participate in the full range of social, academic, and other learning opportunities across all areas of the curriculum (MOE, 2008).
- A thorough evaluation, specialist assessment, can assist teachers with a better understanding about the problem and allow them to plan for instruction. This is essential for the few students who are not responding to the interventions put in place in the classroom and they may need in-depth intervention support.
- Schools should have a register for their dyslexic students showing whether they have a psychological diagnosis, parental information, teacher’s belief etc., family history at time of enrolment. Early milestones being met will be other indicators of dyslexia.

- There is no “quick fix” for dyslexic students. A dyslexia friendly school should have effective classroom practices and management, monitoring and assessment, differentiation, intervention support (if needed), emotional security, and a positive classroom supportive culture.
- Schools need to support the student emotional well-being. Teachers should use positive and affirmative language that celebrates success, as well as scaffolding in small steps for the learner for the next learning.
- Schools need to ensure early intervention programmes are put in place for identified dyslexic students.
- Schools need to ensure that they have policies in place around planning, assessment, monitoring and learning, programmes of intervention, and ways of supporting their dyslexic students.
- Schools need to provide professional development on teaching and learning strategies needed to support dyslexic students.
- Schools need to ensure that their focus is on catering for the whole child and integrating the whole programme. Inquiry learning will often support dyslexic students and allow them to use their strengths.
- Schools may include provisions for students with dyslexia by providing extra time for class assignments and tests, a quiet place for work completion and recorded texts, and modifications to the curricula. Accommodations may include: provision of extra time for class assignments and tests, a quiet place for work completion, recorded texts, reader writers, and reducing the size of assignments without modifying the content (Shaywitz, 2003).

### **3. Teachers need to recognise that:**

- Dyslexia is neurological in origin which results from differences in how the brain processes information.
- Teachers could be given a list of the characteristics of dyslexia to help them and identify why some children, despite quality teaching, are not reaching their milestones. Teachers in mainstream classes are not trained to diagnose dyslexia but they are able to identify children’s learning needs and then look at ways to address these.
- Teachers need to recognise the dyslexic student’s strengths while still supporting them to learn in a variety of ways to support or minimise their weaknesses. A teacher needs to look at a student’s learning preferences and learning styles so that teaching and learning can have the optimum effect on the dyslexic student.
- Teachers need to use a multisensory approach to teaching spelling, reading, writing in order for students to gain in confidence and self esteem and aid emotional literacy.

- Teachers need to cater for dyslexic students who may often have a range of differences. They need support within the classroom e.g. organisational skills, time management skills, focussing on task, auditory memory, visual sequential working memory, auditory sequential working memory, information processing, phonological awareness skills, etc.
- Teachers need to encourage parent and home relationships as both need to work together to support the student. Parents may wish to have a proper diagnosis done and the school would support this and work with the parents and child as a result of the findings.
- Teachers need to recognise that dyslexic children need structure, excellent teaching, feedback, repetition and practice as part of every-day learning.
- Teachers must be sympathetic, interested, developmental, and empathetic, in order to cater for the emotional well being and anxiety levels of the dyslexic students.
- Teachers may need to teach dyslexic students focussing strategies such as those suggested in the Davis Learning Strategies in order to prepare for, and optimize, their learning.

### **Resources purchased as part of the Sabbatical**

- Ginger software writing solutions
- Sondag System 1
- Callirobics Handwriting Exercises Set to Music
- Handwriting Without Tears Programme
- Student Phonic Kit for Reading and Spelling (publisher. Really Great Reading)
- Sets of different kinds of pencil grips
- Phonic flip cards
- Smart Gelboards with stylus
- Lindamood Lips Programme
- Lexia Reading (12 licenses)
- Lexia Cross-Trainer Programme and equipment (12 students)
- Phonics Display Board
- Brain Freeze kits
- Smart Sand Sets

### **Implications and Conclusions**

- Schools need to create a dyslexia friendly school.
- Early identification and interventions for dyslexic students is essential.
- Teachers need to be trained in teaching students with dyslexia.

- A range of multisensory teaching and learning strategies are needed when teaching dyslexic students.
- The methodology of the Orton-Gillingham approach to teaching dyslexic children is highly recommended.
- Dyslexic students will need on-going support at school.
- Classroom teachers will have the most effect on the dyslexic learner.
- Interventions for dyslexic learners may include in-class support, small group, withdrawal programmes, and individual intervention programmes.
- Quality classroom teachers who focus on formative assessment and quality feedback will have the biggest effect on students' learning.
- Schools need to build strong home and school links in order to share information and to understand how both can support their dyslexic students.
- Schools need to look at resources, personnel and resource programmes which will support the students with dyslexia.
- All teachers should have access to the MOE book "About Dyslexia," (2008).
- Schools, through their SENCO, could coordinate designing a toolkit for a dyslexia friendly classroom.
- Glendowie Primary School will set up a Learning Laboratory with 14 stations to be used with the Lexia Reading Programme which has software which gives explicit practice in phonemic awareness and phonics while promoting gains in vocabulary, fluency and comprehension. The dyslexic students and other students with learning needs form years 3-8 will have 3 to 4 sessions a week on this supervised and assisted programme.
- Our school will purchase the Lexia Cross-Trainer programme which is cognitive intervention software designed to improve visual-spatial and logical-reasoning abilities. This will be used in the learning laboratory for up to 14 students at a time, 3 to 4 times a week.

## References

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Allcock, Joy (2010). *A Practitioner's Guide to Using Word Detective. Resources for Reading and Writing Success*.

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- Ministry of Education (2008). *About Dyslexia: Teacher Resource*.
- Porch, Meg & Gilroy, Mary (2005). *Ten in Every Hundred. The What, Who, How and Where of Dyslexia*.
- Shaywitz, Sally (2003). *Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level*.

## Supporting Resources

### Using Technology with Our Most Struggling Readers

Terry Dobson & Heather Baptie  
[info@links2learningonline.com](mailto:info@links2learningonline.com)

#### Programs

[www.readinga-z.com](http://www.readinga-z.com) - Downloadable and printable leveled readers, accompanying lessons, worksheets and assessments.

[www.raz-kids.com](http://www.raz-kids.com) - Online, interactive leveled books. Students listen to, read, and record books. Online quizzes and management tool to track student progress.

[www.readnaturally.com](http://www.readnaturally.com) & [www.oneminutereader.com](http://www.oneminutereader.com) - Fluency development programs for school and home

[www.tickettoread.com](http://www.tickettoread.com) - Online reading program for students in grades K-6. Focuses on fluency, comprehension and vocabulary skills.

[www.explodethecode.com](http://www.explodethecode.com) - Online version of Explode the Code program. Phonics curriculum grades K to 4.

[www.earobics.com](http://www.earobics.com) - Develops phonemic awareness. Online and software versions.

[www.earobics.com/gamegoo](http://www.earobics.com/gamegoo) - Free online games to develop phonemic awareness and early reading skills.

[www.starfall.com](http://www.starfall.com) - Free online phonics based reading program.

Fast ForWord - [www.scilearn.com](http://www.scilearn.com) - Software that strengthens brain processing and literacy skills to increase reading ability.

Eatobics Reach - [www.earobics.com/solutions/programs4-8.php](http://www.earobics.com/solutions/programs4-8.php) - Online reading intervention program for upper elementary and middle school students.

### Alternative Access to Text

Bookshare - [bookshare.org](http://bookshare.org) - Accessible books and periodicals for readers with print disabilities. Free for all U.S. students with qualifying disabilities.

LibriVox - [librivox.org](http://librivox.org) - Non-profit organization whose goal is to make all public domain books available as free audio books.

NetLibrary eAudiobooks - [www.ocic.org/audiobooks](http://www.ocic.org/audiobooks) - Access ebooks and audio books in 17,000 libraries.

Project Gutenberg - [www.gutenberg.org](http://www.gutenberg.org) - First producer of free ebooks.

### Accessibility

[www.kurzweilededu.com](http://www.kurzweilededu.com) - Text reader as well as writing and study skill support.

[www.apple.com/accessibility](http://www.apple.com/accessibility) - Assistive technologies to help individuals with learning, vision, hearing, and motor disabilities.

Text-to-Speech for Windows - [www.screenreader.net](http://www.screenreader.net), [www.readplease.com](http://www.readplease.com), [www.naturalreader.com](http://www.naturalreader.com) (free)

[www.vozme.com](http://www.vozme.com) - Online text-to-speech tool. Add speech to browser, website. (free)

Firefox - [www.addons.mozilla.org](http://www.addons.mozilla.org) - Accessibility bar, readability, text-to-voice, theme font size changer, no squint.

[www.scribe.googlelabs.com](http://www.scribe.googlelabs.com) - Autocomplete suggestions as you type. -

[www.gingersoftware.com](http://www.gingersoftware.com)- writing solution

Wikipedia - [www.simple.wikipedia.org](http://www.simple.wikipedia.org) - Less complex language.

### iTouch/iPhone Apps

Canby School District Achievement Data -

<http://wiki.canby.k12.or.us/groups/ipodusergroup/blog/>

Escondido Union SD - Over 160 education apps <http://tinyurl.com/y4w5777>

Dragon Dictation (free) - Voice recognition app by Dragon Naturally Speaking Speak It! (\$1.99)- Text to Speech

Google (free) - Has voice recognition •

iPadio (free) - Broadcast, record, playback share audio

iStudiez Lite (free) - Organization app

Evernote (free) - Notetaking by voice, text, picture, screen capture

Dropbox (free) - Sync and share files online

WikTap (free) - Wikipedia info and video

EZ Read (free) - Literature resources of [Sparknotes.com](http://Sparknotes.com)

Stanza, iBooks, Kindle, etc (free) - eBooks StoryKit

(free) - Create electronic storybooks

BrainPOP (free) - New BrainPOP featured movie every day

Dr. Ito's Brain Training (free) - Memory exercises

Sound Smart (\$2.99) - Vocabulary development