## Summary of Results – 3-11-2012

Name Surname  Age at Test: 13 yrs 3 mths

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Dictation</td>
<td>Typed passage&lt;br&gt;Speed: 11 words per minute 4th percentile&lt;br&gt;Percentage Errors: 28.05%</td>
</tr>
<tr>
<td>Visual Perception (TVPS – Test of Visual Perceptual Skills)</td>
<td>Visual Discrimination: 63rd percentile&lt;br&gt;Visual Memory: 16th percentile&lt;br&gt;Form Constancy: 91st percentile</td>
</tr>
<tr>
<td>Visual Perception (TVPS – Test of Visual Perceptual Skills)</td>
<td>Spatial Relations: 16th percentile&lt;br&gt;Form Constancy: 91st percentile</td>
</tr>
<tr>
<td>Sequencing</td>
<td>Rote sequences and numeric sequences fine. Auditory sequencing errors occur with other tasks.</td>
</tr>
<tr>
<td>Auditory memory</td>
<td>Digits Forwards: 7 year level&lt;br&gt;Digits Reversed: 9 year level</td>
</tr>
<tr>
<td>Phonological Awareness (PhAB – Phonological Assessment Battery)</td>
<td>Rhyme recognition: 13th percentile&lt;br&gt;Generating rhyming words: 24th percentile&lt;br&gt;Generating words using alliteration: 70th percentile&lt;br&gt;Generating words semantically: 48th percentile&lt;br&gt;Generating rhyming words: 70th percentile&lt;br&gt;Non-word reading: 24th percentile&lt;br&gt;Generating rhyming words: 48th percentile</td>
</tr>
<tr>
<td>Academic (WISC-IV + Vernon Maths Test)</td>
<td>Arithmetic: 16 yrs 2 mths&lt;br&gt;Maths: 14 yrs 3 mths&lt;br&gt;Similarities: 11 yrs 10 mths</td>
</tr>
<tr>
<td>Literacy (Lucid Exact)</td>
<td>Word Recognition: 4th percentile&lt;br&gt;Spelling: 10th percentile</td>
</tr>
<tr>
<td>Intellectual</td>
<td>Verbal Reasoning&lt;br&gt;Lucid Ability - 13th Percentile&lt;br&gt;Similarities (WISC-IV) – 11 yr 10 m</td>
</tr>
</tbody>
</table>

### General Summary (see report for further detail)

Name’s assessment indicates good non-verbal reasoning, but a marked weakness with verbal reasoning, which has a significant effect on language skills, such as reading comprehension, inferential thinking and vocabulary. There are also weaknesses in phonological awareness and visual perception and these have affected literacy development. Name’s processing difficulties are consistent with dyslexia/Specific Learning Disability.

**Recommendations:** Specialist teaching, teach touch typing<br>Extra time in examinations<br>Irlen/visual perception follow-up (John Anstice)
BACKGROUND

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TEST BEHAVIOUR/OBSERVATIONS

Name worked cooperatively throughout the assessment. He appeared to tire quite quickly and he struggled to maintain concentration. Name also had difficulty coping with instructions. Instructions or questions often needed to be repeated, sometimes a couple of times. Initiating tasks sometimes caused problems, although Name then went on and demonstrated a good understanding of task requirements.

INTELLECTUAL ABILITY

Verbal and Non-Verbal reasoning skills were assessed using Lucid Ability (computerized software assessment tool) and the Similarities subtest (WISC-IV). The Lucid Ability profile is below.
On the **Verbal Reasoning** subtest (*Lucid Ability*), Name scored at the 13\textsuperscript{th} percentile, indicating very weak verbal reasoning skills and ability to cope with verbal concepts. On the **Similarities** subtest (*WISC-IV*), which measures the same aspect, but in a different way, Name scored at an 11 year 10 month level, which confirms difficulties with this aspect. Name’s performance on both aspects was affected by poor vocabulary knowledge, but he also has difficulties with abstract concepts.

On the **Non-Verbal Reasoning** task, Name scored at the 68\textsuperscript{th} percentile, which is in the Average Range. This subtest requires logic and reasoning skills, but also the ability to accurately process visual information.

Overall, this aspect of the assessment indicates that Name is in the Average Range for non-verbal reasoning and therefore has satisfactory overall intellectual potential. However, there is a significant difficulty with processing language and verbal concepts. This affects language processing aspects, such as vocabulary, comprehension and inferential thinking and will have an effect on Name’s ability to cope with the curriculum generally.

**Recommendations**

*It is recommended that Name has a full speech-language assessment to identify exactly where his problems lie and how best to remediate them.*

*In school, Name will need help with interpreting and processing verbal information and with processing abstract concepts. Resources such as Key into Inference are likely to be very beneficial to him.*

*The Steps literacy program has been shown to have a significant effect on verbal reasoning skills, as well as on literacy skills. This program is likely to be very beneficial for Name, either in school or at home.*

**Notes on interpreting intellectual scores:**

*All intellectual assessment results need to be interpreted with care. A child’s performance on a particular day may be affected by many factors, including anxiety, lack of confidence, tiredness or unfamiliarity with that style of task. They are also likely to be affected by any processing difficulties the child may have. The level which a child achieves on a particular day may therefore indicate a ‘base’ level, rather than a true reflection of their potential under other circumstances.*

*There are two aspects, which are important. *Intellectual potential* is an indicator of how much intellectual potential a child may have. However, *cognitive efficiency* shows how effectively they are able to use their abilities at that point in time and under those circumstances. Particularly with children with specific learning disabilities there can be a significant discrepancy*
between these two aspects. This is because their performance may be affected by perceptual or processing difficulties (as well as by the factors mentioned above). This needs to be considered when interpreting results, as the results on any test of intellectual ability show cognitive efficiency, which may change over time.

MOTOR DEVELOPMENT

Laterality
There is a degree of cross-laterality. Name is right-handed, but left-foot dominant. He is left-eye dominant for distant vision, but right-eye dominant for close vision.

Note: Cross-laterality is not necessarily significant unless it affects functionality. Cross-laterality occurs naturally in some people and is more common with dyslexics. Where there is mixed laterality within vision, this can contribute to perceptual difficulties. A behavioural optometrist’s assessment may be required.

Gross motor coordination
Not applicable.

Fine motor coordination
There are no overflow movements on the finger-thumb test.

Handwriting and copying
Name’s handwriting is immature for his age. His pencil grip is good and letters are correctly formed on the whole (apart from ‘o’), but Name does not appear to use joined writing. His writing is also fairly erratic and letters are inconsistently sized and often well above the line.

On a copying task, Name managed 12 words in one minute 15 seconds, which is a satisfactory speed. His visual retention span (number of letters encoded in each glance) is satisfactory and he made no errors. However, Name reports that he has much more difficulty when copying from a board in class. He needs more time than most others in his class and frequently does not finish. He also loses his place and can’t concentrate on what the teacher is saying while he is copying. Name finds it particularly problematic to read words written in a green marker pen. Blue and black are the easiest colours for him to cope with. This is consistent with Irlen Syndrome.
**Recommendations**

Care should be taken when expecting Name to read a whiteboard. Teachers need to avoid using green marker pens and it is worth experimenting with lighting or Name’s position in the classroom, so that light is not reflecting off the board at the wrong angle for him.

**Dictation Passages**

Name did one typed passage to dictation and also a handwritten dictation. Name wrote at approximately 18 words per minute, which is not a functional speed for examinations, where a minimum of 22-25 wpm is necessary. He scored at the 23rd percentile for this aspect and made 23 errors of spelling or grammar, which equates to an error rate of around 18%. Many of these errors were minor errors such as capital letters missing. However, there were a number of spelling errors despite a relatively low level of vocabulary. Name’s handwriting was reasonably legible.

*Sample errors:* of/off, frount/front, relly/really, sugeschon/suggestion, anot/enough trubal/trouble, casing/chasing, desided/decided, tack/take, wich/which

A similar dictation passage was done with Name touch typing. His speed was extremely slow (11 wpm), and Name made the same number of errors, which equates to an error rate of around 28%. This put him at the 4th percentile overall.

*Sample errors:* boxes/boxes, garig/garage, botim/bottom, skereed/scared, tack/take, shoud/should, lern/learn, close/clothes, speshal/special, jackit/jacket

Name is unlikely to be able to cope with examinations without support. If he is able to learn to touch type quickly and automatically by the time he does NCEA, it may be sufficient for him to use a laptop/computer in examinations and have extra time. However, it is likely that he will need a writer and it is therefore recommended that the school monitors Name’s progress with touch typing and provides him with assistance he may need in school examinations.
A decision on Name’s needs for NCEA will need to be taken nearer the time, but it will be necessary to show that Name’s reading comprehension and verbal reasoning skills have developed, as one of the requirements for reader-writer is evidence that the candidate cannot perform to their intellectual level without assistance.

Recommendations
Name would benefit from being taught to touch-type correctly. This will help overall neurological development, particularly fine motor development and will enable him to cope more easily with written work. He would benefit greatly from being allowed to use a laptop in class, if possible, and he should be allowed to use a word processor for classwork, homework and exams.

In class, Name will need more time for all copying tasks – or reduction in the amount of copying through provision of photocopied material/carbon copies.

For classwork and homework, Name is likely to benefit from using assistive technology, such as speech recognition software like Dragon Naturally Speaking. This would enable him to dictate straight into a computer. He also needs to have access to spellcheckers.

SEQUENCING

Rote sequences and numeric sequences are satisfactory. Name made frequent auditory sequencing errors with other tasks.

Recommendation
Name may have difficulty sequencing his ideas for written assignments. He is likely to benefit from using planning software to help him structure his written work. This could include Inspiration or Thinksheet.

VISUAL PERCEPTION

Eyetracking and visual stress
Eye-tracking appears to be reasonably smooth, although Name does report slight discomfort when doing this task. A screening questionnaire for Irlen Syndrome was completed. This showed a number of difficulties associated with Irlen Syndrome. However, Name has already been assessed by John Anstice, who has diagnosed Irlen Syndrome and recommended a green overlay (see discussion in background section), so no further investigation of this aspect was carried out.
**Recommendations**

A further check by John Anstice is recommended. Name’s vision is due to be re-checked anyway, and John Anstice’s advice should be sought about the possibility of tinted lenses. Name is currently finding it very difficult to work on a computer (see above), so this is an issue which is important for him at this point.

**TVPS (Test of Visual Perceptual Skills)**

**Visual discrimination** - 63rd percentile

*This is the ability to discriminate dominant features of objects; for example, the ability to discriminate position, shape, form and colour.*

Well developed.

**Visual memory** - 16th percentile

*This is the ability to recognize one stimulus item after a very brief interval.*

This is an area of weakness. Name scored in the Low Average range for this aspect. A poor visual memory for words will affect sight vocabulary acquisition.

**Spatial Relations** - 95th percentile

*This is the ability to perceive the positions of objects in relation to oneself and/or other objects (e.g. figure reversals or rotations).*

Excellent.

**Form Constancy** - 91st percentile

*This is the ability to recognise the same shape even when it is rotated or different in size.*

Excellent.

**Visual Sequential Memory** - 63rd percentile

*This is the ability to remember visual patterns in the correct order.*

Well developed.

**Visual Figure Ground** - 75th percentile

*This is the ability to identify an object from a complex background or surrounding objects.*

Well developed.

**Visual Closure** - 25th percentile

*This is the ability to identify a whole figure when only fragments are presented.*

Low Average Range.
**Recommendations**

Most aspects of visual perception are well developed, but Name would benefit from help to develop visual memory and visual closure. There is further information on these aspects, together with suggested activities, links or resources on the website [www.visionandlearning.org/visual perception08](http://www.visionandlearning.org/visual perception08).

Weaknesses in visual memory will affect Name’s ability to acquire an effective sight vocabulary, so his literacy instruction needs to incorporate considerable reinforcement. The easiest and most enjoyable way of doing this is by using literacy software programmes.

Care should be taken when expecting Name to read a whiteboard. Teachers need to avoid using green marker pens and it is worth experimenting with lighting or Name’s position in the classroom, so that light is not reflecting off the board at the wrong angle for him.

**AUDITORY PERCEPTION**

**Auditory memory**

This is a very weak area for Name.

- **Digits Forwards (WISC-IV)** - 7 year level (auditory sequential memory)
- **Digits Reversed (WISC-IV)** - 9 year level (working memory)

Auditory sequencing errors were made with all aspects.

It is slightly unusual to find a learner who scores higher for working memory than for auditory sequential memory, but there is not necessarily any particular significance to this. There is always likely to be some variation in scores with individual tasks. Scores for both aspects indicate significant weaknesses and this aspect is likely to affect Name’s ability to cope in class, particularly when there is complex verbal information or instructions to process.

Weaknesses in working memory can have a particular effect on coping with verbal instructions, maths and listening comprehension.

**Recommendations**

Name may have difficulty following a steady stream of verbal information in a classroom situation. He is likely to have particular difficulty with verbal instructions and teachers need to be aware of this. Homework instructions should ideally be given in written form where possible.
Name may find it useful to use a digital voice recorder to make notes for himself or record homework instructions.

The auditory sequential and working memory activities on Steps would be particularly useful for Name and Memory Booster will be a valuable resource for him.

Phonological Awareness
Name has no difficulty isolating individual sounds in words. However, his scores on the PhAB (Phonological Assessment Battery), indicate a very uneven pattern of abilities. There are some weaknesses, mainly with identifying and generating rhyme and word retrieval, but other aspects are well developed:

Identifying rhyme - 13\textsuperscript{th} percentile
Naming speed (pictures) - 24\textsuperscript{th} percentile
Naming speed (digits) - 32\textsuperscript{nd} percentile
Semantic fluency - 48\textsuperscript{th} percentile
Generating words using alliteration - 70\textsuperscript{th} percentile
Generating words using rhyme - 24\textsuperscript{th} percentile

ACADEMIC AND LANGUAGE SKILLS

Arithmetic (WISC-R) - 16 years 2 months
This is a series of mental arithmetic tasks, which require numeric understanding, but also working memory.
Very well developed. Name coped extremely well until questions became more complex and he had to process several pieces of information in working memory. However, even when he got to that stage, he showed excellent persistence, sometimes asking for the question to be repeated a couple of times, but then accurately processing the information and coming up with the right answer.

Maths (Vernon Graded Arithmetic-Mathematics Test) - 14 years 3 months
This is a test of written maths.
Well developed overall, despite Name mis-interpreting the language of several questions.

Information (WISC-IV) - 13 years 2 months
This is a test of general knowledge, which requires longer-term memory as well as comprehension skills.
Age appropriate.
**Comprehension (WISC-IV)** - 9 years 10 months

*This is a test of practical understanding, including understanding situations.*

Name doesn’t always understand the implications of everyday situations and he tends to latch onto the wrong aspects or only identify one element of the answer.

**Vocabulary (WISC-IV)** - 11 years 6 months

*This is a test of practical understanding, including understanding situations.*

This is a weak area for Name. A lack of vocabulary knowledge also affected his performance in some of the other verbal subtests.

**LITERACY SKILLS**

These were assessed using Lucid Exact, a computerized software programme which analyses the skills needed for examination success.
Overall, the profile above shows significant weaknesses which will affect Name’s ability to cope in class and in examinations. See below for detailed information.

**Spelling (Lucid Exact)**

- **2nd percentile**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Regular words</th>
<th>Irregular words</th>
<th>Overall words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard score</td>
<td>73</td>
<td>67</td>
<td>69</td>
</tr>
<tr>
<td>Confidence interval</td>
<td>67 - 79</td>
<td>59 - 75</td>
<td>62 - 76</td>
</tr>
<tr>
<td>Centile score</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Raw score</td>
<td>14</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Age equivalent</td>
<td>8:8-8:11</td>
<td>8:7-9:3</td>
<td>8:5-8:6</td>
</tr>
</tbody>
</table>

Name’s spelling is extremely weak. He has a poor sight vocabulary for spelling, which limits his ability to cope with irregular words. When tackling unknown regular words, he uses phonological awareness quite effectively, but lacks phonic and orthographic knowledge.

*Sample errors:* juse/ juice, pere/ pair, nater/ nature, diagrame/diagram, infeshin/infection, engen/engine, goest/ghost, captine/captain, acrbat/acrobat

**Reading (Lucid Exact)**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Regular words</th>
<th>Irregular words</th>
<th>Overall words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard score</td>
<td>71</td>
<td>78</td>
<td>73</td>
</tr>
<tr>
<td>Confidence interval</td>
<td>67 - 75</td>
<td>73 - 83</td>
<td>67 - 79</td>
</tr>
<tr>
<td>Centile score</td>
<td>3</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Transformed score</td>
<td>25</td>
<td>27</td>
<td>52</td>
</tr>
<tr>
<td>Age equivalent</td>
<td>8:8-8:11</td>
<td>9:3-9:5</td>
<td>8:8-8:11</td>
</tr>
<tr>
<td><strong>Total words correct</strong></td>
<td><strong>37</strong></td>
<td><strong>Total time (min:sec)</strong></td>
<td><strong>2:39</strong></td>
</tr>
</tbody>
</table>

Word recognition skills are very limited, with no significant difference between regular and non-regular words. This indicates that Name has a very poor sight vocabulary for reading, but also lacks the decoding skills needed to work out unknown words.
Name struggles at very low levels on reading comprehension. Even with passages which are well below his reading level, he has difficulty answering comprehension questions.

**Recommendations**

Name will find it extremely stressful to be expected to read aloud in front of the class and this should be avoided if possible. If reading aloud in public is necessary to avoid appearing to ‘exclude’ Name from normal class activities, then he should be given an opportunity to practice his piece of text privately beforehand and care should be taken to avoid complex material.

Name will find it difficult to read instructions and he should be encouraged to ask for help when necessary.

Name needs a very structured approach to literacy which incorporates and develops all the processing skills needed, including phonological awareness and visual perceptual skills. This teaching approach needs to have a strong emphasis on developing a well-consolidated sight vocabulary for reading, as well as developing decoding skills. Considerable reinforcement will be necessary and this can be best provided by using software resources such as the Steps programme and through games.

Useful resources for developing comprehension would be Key into Inference (Triune Publications) and Comprehension Booster (software program).

Name would benefit from listening to taped books and stories. This is not to replace reading practice, but to supplement it. Listening will ensure sufficient exposure to the more formal language of books and will help develop vocabulary, sentence syntax, auditory processing skills and interpretation. Discussing stories afterwards will help to develop sequencing skills and ability to consider the perspective of the listener.
SUMMARY

Name’s assessment indicates a pattern of processing difficulties associated with dyslexia. This includes weaknesses in fine motor development, sequencing, phonological awareness, visual perception and auditory memory. Previous visual assessments have also indicated that he has Irlen Syndrome, which will also affect reading accuracy.

Name will need help to develop the processing and perceptual skills involved in literacy and he needs a very multi-sensory, structured approach, which incorporates plenty of reinforcement and ‘over-learning’. The Steps programme would be appropriate for his needs, but great care needs to be taken to ensure that he does not progress too quickly. It is important to be continually checking to ensure that he is retaining previous material and skills.

Name also needs help to develop language processing skills such as verbal reasoning, vocabulary, comprehension and inferential thinking. He would particularly benefit from the Key into Inference range of resources (Triune Publications) and the software programme Comprehension Booster would also be an appropriate resource for him.

Name is likely to need special examination provision when he gets to NCEA and it will be necessary for his needs to be evaluated again at that stage. He is likely to benefit from extra time, as he is a slow processor, and from using a computer/laptop in examinations, provided that he has learned to touch type by that stage. If his comprehension/language skills have developed by that stage, he may also be eligible for reader-writer consideration. In school examinations, Name should be given the opportunity to trial different options for examination support to establish which are most beneficial for him. This is also important as it provides evidence for an eventual application to NZQA.

Assistive technology and software, such as a hand-held Dictaphone, TextHelp and Dragon Naturally Speaking, are likely to be very beneficial for Name.

A list of other resources which would be suitable for Name is given in the Resource Section below.

Ros Lugg
Oxford & Cambridge Diploma in Specific Learning Disability
NZCER Registered ‘C’ Grade tester

1 December 2012
RESOURCE LIST - Name Surname

This resource list gives details of teaching and game materials which will be of particular help to Name.

Resources with an * are obtainable through The Learning Staircase Ltd. Suppliers of the others are given where possible.

**Literacy**
*Steps to Literacy workbook course – start with Step 1
*Steps – software programme
Key into Inference - higher-level comprehension texts which also develop inferential thinking.

**Perceptual skills**
Gridworks - teaching/game resource which is invaluable for developing sequential thought, planning, visual perception and working memory
Listening with the Brain – excellent listening/memory exercises (Curriculum concepts)
*Memory Booster – software programme which teaches and practises memory strategies

**Touch Typing**
*Type to Learn 4 – specialist touch typing programme

**Assistive Technology**
Digital hand-held voice recorder - can make own notes or record verbal instructions/explanations
Laptop
TextHelp - specialist software programme with features such as spellchecker, predictive text and facility to have text read out loud

**CONTACT LIST**

- Liz Hoani (specialist tutor) – lizhoani@xtra.co.nz. 138 Roydvale Ave
- Rosemary Kraushaar, specialist tutor and speech/language therapist. rosemaryknz@gmail.com. 021 165 1226.

**USEFUL WEBSITES**

- [www.bdadyslexia.org.uk](http://www.bdadyslexia.org.uk)
- [www.dyslexiafoundation.org.nz](http://www.dyslexiafoundation.org.nz)
- [www.bbc.co.uk/schools/](http://www.bbc.co.uk/schools/) - very useful source of materials for adults and older teenagers
- [www.freetypinggame.net](http://www.freetypinggame.net)
- [www.visionandlearning.org](http://www.visionandlearning.org) – Very interesting and comprehensive website which explains visual perception and suggests activities and resources.
- [www.childrensvision.com](http://www.childrensvision.com) – visual perceptual information
- [http://www.bbc.co.uk/schools/typing](http://www.bbc.co.uk/schools/typing)
- [www.assistive.dtsl.co.nz](http://www.assistive.dtsl.co.nz) – assistive technology website with a variety of resources