PSYCHOLOGY REPORT - CONFIDENTIAL

NAME: Nicholas Belling
DATE OF BIRTH: 09/11/2015
ADDRESS: 16 Flinders Avenue, Port Lincoln, 5606, SA
AGE AT TIME OF TESTING: 7 years and 4 months of age
YEAR LEVEL: Year 2
SCHOOL: St. Joseph's School
PSYCHOLOGIST: Guy MacGillivray
DATE ASSESSED: 15/03/2023 and 20/03/2023
DATE OF REPORT: 15/05/2023

REASON FOR REFERRAL

This report outlines the results from a psychometric assessment of cognitive ability and should not be considered a comprehensive psychological assessment of all areas of Nicholas Belling's functioning. A cognitive assessment was requested by his parents due to concerns his academic performance.

BACKGROUND INFORMATION

The following information was obtained via face to face interview with Mum (Greca) and Dad (Luke) at the Novita office.

Nicholas lives with his Greca and Luke in Port Lincoln. He is an only child and the family previous lives in Brisbane until 2021 when the family moved to Port Lincoln to be closer to family. Nicholas was born at full-time via emergency caesarean section because Nicholas' heart rate dropped during labour. There were no complications during pregnancy.

As Nicholas was growing, it was identified by his CAFS nurses that he was two weeks delayed in all of his developmental milestones. Nicholas had ear infections when he was younger and received one set of grommets. In 2022 he was diagnosed with Auditory Processing Disorder and he has no other health issues. In 2023 he had his eye tests and Nicholas is slightly long sighted and prescribed glasses. No concerns were raised with his ears.

Nicholas attends St. Joseph's School in Port Lincoln and he was in year 2 at time of assessment. Nicholas started doing MiniLit in 2022 and he has continued in 2023. He has a lot of friends at school but no specific best friends. When he is at school he enjoys playing with his peers and playing sports. Nicholas does not like sitting in class, reading and maths.

Nicholas' teachers at the school, Jemma Hunt and Lee-Anne King, reported that Nichloas has difficulty retaining information that he is provided in class. He is able to retain information better when it is provided in a one on one environment. He is attending a literacy group four mornings a week and working on his handwriting three mornings a week. Both teachers are concerned about his literacy and they reported that he is below his class peers in this skill area. He is making letter reversals on a regular basis. They have no concerns with his numeracy skills.

When Nicholas is at home he enjoys playing on his iPad, Minecraft, Lego and building pumps. Outside of school he does swimming, horse riding and gymnastics.

Previous Assessments

Clinical Evaluation of Language Fundamentals – Fifth Edition (CELF-5), 2022, Rachel Ayliffe, Speech Pathologist, Novita
- Core Language (Mild delay)
- Receptive Language Index (Mild delay)
- Expressive Language Index (Mild delay)
- Language Content (Mild delay)
- Language Memory (Mild delay)

Comprehensive Test of Phonological Processing Second Edition (CTOPP-2), 2022, Rachel Ayliffe, Speech Pathologist, Novita
- Phonological Awareness (Below Average)
- Phonological Memory (Average)
- Rapid Symbolic Naming (Average)
- Rapid Non-Symbolic Naming (Very Poor)

Screen for Child Anxiety Related Disorders (SCARED) Parent Version, 2023, Guy MacGillivray, Psychologist, Novita
- Overall anxiety – Clinically significant
- Panic Disorder – Average
- Generalised Anxiety Disorder – Clinically significant
- Separation Anxiety Disorder – Clinically significant
- Social Anxiety Disorder – Borderline significant
- School Avoidance - Average

ASSESSMENT DETAILS

The following assessments were completed:

- *Wechsler Intelligence Scale For Children – Fifth Edition (WISC-V)*
- *Wechsler Individual Achievement Test – Third Edition (WIAT-III)* – selected subtests

TEST BEHAVIOUR

Nicholas was brought to the Novita office for both assessments which occurred on two separate days. Both of parents dropped him and one parent waited for Nicholas. At each assessment he was dressed in his school attire. At the first assessment he was initially a little anxious about completing the assessment and this identified by the SCARED assessment. Games were played with Nicholas until he felt comfortable to continue the assessment. Nicholas had a drink bottle with him at both assessment and he did not require breaks between subtests. He completed all written tests with his right hand with a tripod pencil grip. Nicholas made good eye contact during the assessment and he wore his glasses the whole time. The results from the assessment are regarded as valid.

ASSESSMENT RESULTS

It should be noted that the results outlined below are a snapshot of Nicholas's abilities. Performance on the measures outlined below can be influenced by a number of factors including Nicholas's health and wellbeing, and motivation to perform the tasks. In addition, these measures capture only part of Nicholas's skills and abilities.

Wechsler Intelligence Scale for Children – Fifth Edition (WISC- V)

The *WISC-V* is an individually administered test which provides an estimate of general intellectual functioning for children aged from 6 years through to 16 years 11 months. Five index scores and a Full Scale score are derived. Additional ancillary scores can also be calculated. Nicholas' scores were as follows:

Summary of WISC-V Results

	Descriptor	Percentile
Verbal Comprehension	Extremely Low	2nd *
Visual Spatial	Average	30th
Fluid Reasoning	Average	34th
Working Memory	Very Low	8th
Processing Speed	Low Average	13th
Full Scale Score	**Very Low**	8th

The percentile rank indicates how the student performed compared to other students of the same chronological age who were in the normative test sample. For example a student whose percentile rank is 50 scored equal to or better than 50% of the normative test sample. A percentile rank of below 25 indicates that the student experienced more difficulty with the tasks involved than most students of the same age. A percentile rank above 75 indicates that the student experienced more success with the tasks than most students of the same age. Percentile ranks falling between 25 and 75 are considered to be within the average range.

* indicates there are significant differences in subtest scores contributing to this score

Verbal Comprehension Index: The Verbal Comprehension Index subtests explored Nicholas' ability to think and reason verbally, to understand verbal information and to express ideas and thoughts in words. In the Similarities subtest, the examiner provided Nicholas with two words and asked him to identify a similar characteristic. The Vocabulary subtest required Nicholas to describe words. He exhibited uneven performance across these two subtests. The discrepancy between Nicholas' scores on the Similarities and Vocabulary subtests is clinically meaningful. These subtests differ in the specific abilities involved, and consideration of the difference between the two scores informs interpretation of the VCI. On this occasion, Nicholas' verbal reasoning abilities, as measured by the Verbal Comprehension Index, were estimated to be within the *Extremely Low* range of functioning and equal to, or better than, 2% of same-aged peers.

Visual Spatial Index: The Visual Spatial Index assessed Nicholas' performance on tasks which required him to understand and interpret visually presented information and attend to visual details. These subtests measure visual reasoning, spatial processing and visual motor integration. These subtests do not rely as heavily on oral language skills. In the Block Design task, Nicholas was asked to place two-coloured blocks together to copy a pattern shown in a model and/or picture. The Visual Puzzles subtest required Nicholas to view a completed 'puzzle' and select three response options that could be used to reconstruct the puzzle. On this occasion, Nicholas' visual spatial abilities, as measured by the Visual Spatial Index, were estimated to be within the *Average* range of functioning, with his score being equal to (or better than) 30% of same-aged peers.

Fluid Reasoning Index: The Fluid Reasoning Index subtests measured Nicholas' ability to understand and apply rules relating to visual materials, using reasoning and abstract thinking. These subtests measured quantitative and inductive reasoning as well as Nicholas' ability to extract detail from visual information. As with the Visual Spatial Index, these subtests do not rely as heavily on oral language skills. The Matrix Reasoning subtest required Nicholas to complete visual sequences. In the Figure Weights subtest, Nicholas, viewed a picture of a scale with a missing weight(s) and identified which response option would keep the scale balanced. On this occasion, Nicholas' fluid reasoning abilities, as measured by the Fluid Reasoning Index, were estimated to be within the *Average* range of functioning and equal to, or better than, 34% of his same-aged peers.

Working Memory Index: Subtests measure attention, concentration and working memory. Tasks required Nicholas to temporarily retain information in memory, and mentally manipulate this information. The Digit Span subtest involves repeating back strings of numbers, either forwards, backwards, or in ascending order. The Picture Span subtest involved viewing a page with one or more pictures, and Nicholas was asked to identify those images in the correct order from an array of other pictures. On this occasion, Nicholas' abilities in the area of working memory, as measured by the Working Memory Index, were estimated to be within the *Very Low* range of functioning and equal to, or better than, 8% of his same-aged peers.

Processing Speed Index: The Processing Speed Index subtests provide a measure of Nicholas' ability to quickly and correctly scan, sequence and process simple visual information during timed tests. Short-term memory, attention and visual motor coordination are also measured. Symbol Search required Nicholas to visually scan a group of symbols

and indicate if the target symbols were present. The Coding subtest involved Nicholas using a legend/key to accurately copy symbols that corresponded with numbers. On this occasion, Nicholas' overall speed of information processing, as measured by the Processing Speed Index, was estimated be in the *Low Average* range of functioning, and equal to, or better than, 13% of his same-aged peers.

Full Scale Score: The Full Scale score provides a summary of performance across the five areas of cognitive ability, and provides an estimate of general cognitive functioning. On this occasion, Nicholas's ability score fell within the *Very Low* range of functioning when compared to other children of the same age within the normative test sample, and was equal to, or better than, 8% of his same-aged peers. However, it is important to highlight that there was some significant variability amongst the subtest scores contributing to the Full Scale score, therefore meaning that it is more beneficial to consider his individual index scores for a more comprehensive understanding of his cognitive development.

Wechsler Individual Achievement Test – Third Edition (WIAT-III)

The *WIAT-III* is an individually administered test for people 4-50 years and 11 months of age. It assesses a broad range of academic skills in the domains of reading, writing, mathematics and oral language. It can be used as a comprehensive assessment or focussed on the area of need.

Early Reading Skills

Subtest	Descriptor	Percentile Rank
Early Reading Skills: Assesses several skills deemed important for developing reading skills	Very Low	4th

The Early Reading Skills subtest items are categorised into four general content domains and Nicholas' ability in each of the areas is detailed below:

- *Naming Letters:* Nicholas was able to accurately all of the letters that were shown to him.

- *Letter-Sound Correspondence*: Nicholas found it difficult to identify the sounds in the beginning of words that sound the same as the other words. He was able to identify the sounds at the end of words.

- *Phonological Awareness*: Nicholas had some difficulty being able to rhyme words or find words that rhyme. It appeared that sometimes he was not sure what the word rhyme meant as he would provide the same answer as the prompt.

Basic Reading

Subtest	Descriptor	Percentile Rank
Word Reading: Assesses student's reading of list words.	Very Low	5th
Pseudoword Decoding: Student uses phonetic knowledge to sound out nonsense words.	Low Average	23rd
BASIC READING COMPOSITE SCORE	Low Average	12th

In the Word Reading subtest Nicholas was required to read a list of words with increasing difficulty. He was able to read words up to four letters in length. When Nicholas made errors it was often at the beginning of the word with the ending being correct to the original. I.e., instead of reading the word 'That', he read it as 'What'. His word reading speed was equal to 10% of his same-aged peers.

The next subtest was Pseudoword Decoding and Nicholas was required to not real words that require the same principles of reading. Again when Nicholas made errors they occurred at the beginning of words. His Pseudoword reading speed was equal to 10% of his same-aged peers.

Overall, Nicholas Basic Reading score placed his performance equal to or better than 12% of his same aged peers.

Alphabet Writing Fluency

Subtest	Descriptor	Percentile Rank
Alphabet Writing Fluency	Very Low	3rd

In the subtest Nicholas was required to write out as many letters from the alphabet as he could in a set time limit. Nicholas chose a random selection of letters and he was able to write down 'm', 'p', and 'u', all in lowercase. Nicholas made two letter errors when he wrote them back to front.

Reading Comprehension

Subtest	Descriptor	Percentile Rank
Reading Comprehension: Student reads short passages, and then orally answers	Extremely Low	0.4th

questions about the main ideas, specific details or order of events. The student may also be asked to make inferences, and draw conclusions.		

For the Reading Comprehension subtest, Nicholas was required to read some unseen texts and he chose to read them all aloud. He was then asked questions about the text that he has just read. Nicholas was able to answer a few explicit questions about the text but he was not able to answer any implicit questions such as the overall message of the text. He was not able to answer any questions about the last text that he was given to read.

Written Expression

Subtest	Descriptor	Percentile Rank
Spelling: Student spells a range of target words.	Very Low	3rd

In the Spelling subtest, Nicholas was required to write down words that were provided to him verbally after being used in a sentence. He was able spell one three letter word and he was able to write his name (he did reverse the letter N in his name) and a few other single letters. He also made reversals on the letter Z.

Oral Reading Fluency

Subtest	Descriptor	Percentile Rank
Oral Reading Fluency: Measures speed, accuracy, fluency, and prosody of contextualised oral reading.	Very Low	5th

Nicholas was required to read two unfamiliar texts as timed tasks. Nicholas was assessed for his speed and accuracy when reading the texts. At the completion of the text, Nicholas was asked a question about the text to assess his comprehension of the text. His reading style involved little sense of phrase boundaries, frequent word-by-word reading and no intonation. He was able to correctly answer the questions that he was provided about the texts. Overall, Nicholas' oral reading accuracy was found to be equal to, or better than, 6% of his same-aged peers while his oral reading rate was found to be equal to, or better than, 7% of his same-aged peers.

Mathematics

Subtest	Descriptor	Percentile Rank
Maths Problem Solving: Measures untimed maths problem solving skills in a range of domains. Problems are presented verbally, with the student looking at visual stimuli and answering verbally and/or by pointing.	Very Low	7th
Numerical Operations: Assesses ability solve written calculation problems.	Low Average	19th
MATHEMATICS COMPOSITE SCORE	Low Average	10th

Maths Problem Solving

Performance on the Maths Problem Solving subtest is based on Nicholas' ability to solve stated problems by: discriminating essential from nonessential information; identifying the required maths process(es); setting up the calculation problem for solution; and correctly calculating the answer. The subtest requires verbal prompts with some visual stimuli and Nicholas found this harder to complete the next subtest. He was able to read a simple graph, identify higher and lower numbers, subtract items from a page and recognise number patterns. He had difficulty: reading more complex graphs and calendars; manipulating currency and reading time on an analogue clock.

Numerical Operations

The task assesses maths calculation skills, identification of maths symbols (+, - etc.) and basic operations. Nicholas was required to answer math questions in order across a page. Nicholas found this task easier to complete than the previous one. Nicholas was able to answer single digit addition questions; however, he did not know how to complete subtraction nor multiplication equations.

His overall Mathematic composite scores placed him in the *Low Average* range and equal to, or better than, 10% of his same-aged peers.

Subtest	Descriptor	Percentile Rank
Maths Fluency - Addition	Low Average	21st
Maths Fluency - Subtraction	Very Low	4th

The fluency subtests required Nicholas to complete as many mathematic equations as he could in 60 seconds. He was able to correctly answer the addition questions; however, he

completed the subtraction questions as if there were additions. His overall Maths Fluency was found to be in the *Low Average* range and equal to, or better than, 10% of his same-aged peers.

SUMMARY

Nicholas is a 7 –year-old boy who was referred for a cognitive and educational assessment by his parents as they were concerned about his academic progress at school. Nicholas attends St. Joseph's School and he is in year 2. He has previously had speech and language assessments which identified his language delays as well as being diagnosed with Auditory Processing Disorder. The assessments were completed using the *WISC-V*, selected *WIAT-III* subtests in a quiet room at the Novita office in Port Lincoln over two separate days. Nicholas was a well-mannered and polite young man who engaged well in the assessments.

The *WISC-V* was used to assess Nicholas' performance across five areas of cognitive ability. When interpreting his scores, it is important to view the results as a snapshot of his current intellectual functioning. As measured by the *WISC-V*, his overall Full Scale score was in the *Very Low* range when compared to other children his age. His Visual Spatial Index and Fluid Reasoning Index were his areas of strength and were found to be in the *Average* range. His Processing Speed Index was found to be in the *Low Average* range, his Working Memory Index was in the *Very Low* range and his Verbal Comprehension Index was found to be in the *Extremely Low* range. The results indicate that Nicholas will find tasks harder to complete when has to rely on purely verbal instructions and that require him to utilise his working memory.

The *WIAT-III* assessed Nicholas' early reading skills, reading comprehension, maths problem solving, alphabet writing fluency, word reading, pseudoword decoding, numerical operations, oral reading fluency, spelling and maths fluency. The results obtained indicated that Nicholas' overall mathematics, maths fluency and basic reading were found to be in the *Low Average* range compared to his peers. Nicholas' reading comprehension and fluency were found to be in the *Extremely Low* range.

The results obtained from the assessments as well as his previous speech and language assessment and his anxiety assessment explain the difficulties that he is having at school. The cognitive assessment revealed that Nicholas has particular difficulty when information is provided to him verbally without visual support. He is also having difficulty with his working memory as well as processing information slower than his peers. These are confirmed by his speech assessments and Auditory Processing Disorder. When information is being provided to Nicholas that is purely verbal and he does not have sufficient time to remember or process the information then this is very hard for him. Recommendations below will outline how best to support Nicholas in his development going forward.

RECOMMENDATIONS

On the basis of the results from the current assessment, the following recommendations are made. It is acknowledged that there are already some supports in place and, as such, similar strategies may well already be in use.

- It will be important to monitor Nicholas's cognitive development and academic progress. A review assessment is recommended prior to Nicholas transitioning to high school.

- Goals and tasks should be tailored to suit Nicholas's current level of development, to encourage progress without becoming overwhelming.

- Provide Nicholas with a verbal prompt in addition to any visual information to assist in allowing him to retain and process the information. This would be beneficial in all of his tasks.

- Pre-teaching and re-teaching lessons learned in school will give him additional exposure to new concepts and may facilitate his comprehension and recall of information.

- Children with relatively slower processing speed may work more slowly than same-age peers, which can make it difficult for them to keep up with classroom activities. Nicholas would benefit from being provided either more time to complete the same amount of school work as his peers or provide Nicholas with less work than his peers to complete within a given time frame.

- To develop his working memory:

  o Nicholas would benefit from receiving information both verbally and visually (images and basic text) as this should increase the likelihood that he is able to retain novel information.

  o Limit the amount of information provided at one time. After providing sufficient time for Nicholas to process this information, repetition of key points can be provided as needed. Additionally encouraging Nicholas to request support when he is not sure of what he should be doing.

  o Digital interventions using an iPad or computer may be helpful in building his capacity to exert mental control, ignore distractions, and manipulate information in his mind as these are mediums that Nicholas finds interesting.

  o Teach Nicholas to chunk information and connect new information to concepts that he already knows

Nicholas may benefit from extra support to develop the skills needed to enhance his reading. Access to an evidence-based reading program is recommended.

- A specified mathematics program which aims to develop Nicholas's number recognition, higher and lower concepts and introduce him to mathematic concepts such as subtraction. The program should focus on verbal explanation for concepts as this would make it easier for Nicholas to retain.

- Nicholas would benefit from programs and skills development to improve his reading comprehension both at school and at home. For example:

    o He could be asked to explain what he has read from a range of areas such as magazines, newspapers, advertisements.

    o Encourage Nicholas to briefly stop at each punctuation mark in a text he is reading and visualise a picture/scene in his mind that summarises or reflects the sentence he just read. As well as encouraging Nicholas to attend to the reading and stop to reflect on what he has just read, the visualisation may also support his comprehension and retention of the information from the text. This may be especially important when he is reading about topics that are less familiar or less of interest to him.

    o Encourage Nicholas to make connections between the text he is reading and his prior knowledge/understanding (e.g., reflecting on how information in the text relates to information he already knows).

    o Encourage Nicholas to make predictions about the text (e.g., what is going to happen next) and/or ask himself questions about the text while reading. Initially, he may benefit from adults providing structure and examples around the types of questions he could consider.

- Emotional development programs at school and externally should be able to assist Nicholas with his anxiety.

- Regular Speech Pathology sessions will assist Nicholas to develop his communication ability including expressive and receptive language skills.

- Psychology intervention is recommended for Nicholas to assist him with his anxiety.

Thank you for the opportunity to assess Nicholas.

Guy MacGillivray
NOVITA PSYCHOLOGIST

T: 08 7641 3400
E: guy.macgillivray@novita.org.au