

**Re-thinking how educators view dyslexia. The  
role school leaders play in developing a culture  
of success for dyslexic students.**

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A dissertation completed as part of the requirement towards a Masters in  
Educational Leadership.

School of Education

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2020

## Abstract

Dyslexic thinkers make up approximately ten percent of the population. Of those classified as dyslexic respective strengths and weaknesses can vary significantly from individual to individual. The perceptions that surround dyslexia are much the same and are crucial in determining the support and assistance dyslexic thinkers receive in the New Zealand Education System.

The purpose of this study is to firstly comprehend principals understanding of what dyslexia is and how they support dyslexic students in their school community. Secondly, to determine how principals can create a culture of success for dyslexic students in their school, that acknowledges and caters for their weaknesses but at the same time recognises their strengths. Four New Zealand primary school principals who are deemed to be doing something out of the ordinary for dyslexic thinkers were interviewed as part of this research.

Three themes that emerged through this study. Firstly, the importance of knowing and understanding students as individuals. Secondly, the significance of intentional and ongoing professional development for teachers and lastly the recognition that transitioning to a strength-focused school is a journey that individual school communities need to go on to together to reflect their unique community.

Although this study was on a small scale, consideration of the themes discussed here can provide guidance to other schools and principals looking to better support their dyslexic students.

## Acknowledgments

John Maxwell once said that “nothing of significance was ever achieved by an individual acting alone”(Maxwell, 2006, p. 1). The same can be said for completing a Masters Degree. Firstly, I would like to thank my husband Grant, for his continual support, editing and words of wisdom. To my three children, Chloe, Ben, and Levi, for their encouragement and cooking the occasional dinner. To my extended family and friends thank you for cheering me on. Secondly, I would like to thank my supervisor, John Milne for your words of advice and helpful feedback. Finally, I would like to thank the principals who generously gave up their time to be interviewed. Your insights and wisdom were truly valuable.

The research conducted for this dissertation was approved by the Auckland University of Technology Ethics Committee (Application 19/426) on 21/11/19.

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I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Sarah Prestidge

# Introduction

## Introductory comments

Dyslexia is a multifaceted condition that results in the brain thinking and processing in a distinct and unique way (Dehaene, 2009). It is often marked as a language disability, with dyslexic thinkers frequently struggling with the basics of learning to read, write, and spell. On the flipside, dyslexic thinkers are often known for their creativity, problem-solving and thinking outside the box (Eide & Eide, 2012). This array of strengths and weaknesses does not fit neatly into the school system, and dyslexic students can often suffer from low self-esteem and depression as a result (Al-Lamki, 2012).

Dyslexia affects between three to twenty percent of the population, making it a sizable portion of society (Nicholson & Dymock, 2015; Shaywitz, 2005). On average, this means that in every classroom, a teacher would expect to have between one to four dyslexic students, highlighting the importance of teachers having a good understanding of what dyslexia is. Beliefs about dyslexia, including what it is, how it is identified and what strategies work best for dyslexic thinkers varies widely between educators (Moats, 2009, 2014); with a number of researchers expressing concern about the gap between research and teacher understating in this area (Dehaene, 2009).

Recent studies in New Zealand have concluded that the current education system is not adequately catering to our neuro-diverse students (Tunmer, Chapman, Greaney, Prochnow, & Arrow, 2013; Yang, 2016). According to Nicolson and Fawcett (2010), our educators lack the tools to know how to best teach dyslexic students, resulting in parents and students feeling frustrated that their child's needs are not being catered for (Leitão et al., 2017; Yang, 2016).

## Rationale

The New Zealand Ministry of Education published two reports in an attempt to rectify how neuro-diverse students are catered for in 2019 and 2020 (Ministry of Education New Zealand, 2019; New Zealand Ministry of Education, 2020). One of the features of these



reports was the need to recognise dyslexic students' strengths, requiring schools to shift from a deficit focus to a strength focus.

A vast amount of research has been conducted in the area of dyslexia; the focus of which has often been on mitigating dyslexic students' areas of weakness. Very little research exists about how schools can recognise dyslexic students' strengths and what this would look like in practice. With principals setting the culture of a school, their understandings about dyslexia is an important factor to be considered. Once again, there is little to no research on the implications of education leaders' perceptions of dyslexia on school culture.

## Research aims

The aims of this inquiry are:

- To engage in discussions with school principals whose schools are deemed successful with dyslexic learners to determine what they perceive makes them successful in this area.
- To investigate how a strength-focused culture could positively impact dyslexic students in their learning at school.
- To explore how Primary School principals can lead cultural change in their school based on a strength-focused model.

## Research Questions

How is dyslexia understood by New Zealand Primary School principals and how is this reflected in the schools they lead? Are there specific leadership practices that develop a culture of success for dyslexic students?

Sub-questions:

- Do principals understand both the difficulties and strengths of dyslexic students?
- Are dyslexic students' strengths recognised in school policies and practices?
- What are the implications for a strengths-focused approach for dyslexic students?

## Chapter Two: Literature review

*“You will never understand what it feels like to be dyslexic. No matter how long you have worked in this area, no matter if your children are dyslexic, you will never understand what it feels like to be humiliated your entire childhood and taught every day to believe that you will never succeed at anything.” (Wolf & Stoodley, 2008, pp. 165-166)*

Chapter two investigates what current literature informs our understanding of dyslexia and how dyslexic thinkers process and learn in a school setting. Discussion of the common challenges and areas of strength associated with dyslexia are highlighted throughout this chapter. Current dyslexia recognition and support structures in the New Zealand context are examined in light of the newly released Learning Support Action Plan 2019 – 2025 and the ‘About Dyslexia- supporting literacy in the classroom report published in 2020. The role that education leaders play in supporting both teachers and dyslexic students in their school community is examined and critiqued. Investigating how dyslexic students’ strengths can be valued and celebrated in a school setting and the process in which education leaders can go about leading this change in their school.

### Dyslexia: What is it?

Dyslexia is a term known by many but understood by few. A wide spectrum of understanding and perceptions are associated with dyslexia. Letter and number reversal, ‘difficulty in reading’, a ‘reading disability’ or students that simply ‘need to put in more effort’ are all phrases that are attached to the concept of dyslexia. But on the flip side, others refer to dyslexia as a ‘gift’ or an ‘advantage’. This array of ideas conflict with one another.

The word *dyslexia* is derived from the Greek language, with *dys* meaning difficulty and *lexia* meaning words; therefore, the literal translation of dyslexia is “difficulty with words” (Nicholson & Dymock, 2015, p. 2). There are two distinct types of dyslexia; the most

common form is known as *developmental dyslexia*, which is the form defined by the International Dyslexia Association below. The second is *acquired dyslexia*, which can develop because of a stroke, brain injury or serious trauma. This research will focus on developmental dyslexia. While the term *developmental* often refers to a process or a stage, developmental dyslexia does not imply that people will grow out of dyslexia, but rather that their needs may develop and change (New Zealand Ministry of Education, 2020). The International Dyslexia Association (2002) defines dyslexia as:

*A specific learning disability that is neurobiological 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.*

This definition is often the starting point for most people's understanding of dyslexia, however many researchers and experts in dyslexia consider this definition unsatisfactory, resulting in little agreement as to how best to define dyslexia (Chapman, 2019; Davis & Braun, 2011; Eide & Eide, 2012; Snowling, 2013; Wolf & Stoodley, 2008). Wolf and Stoodley (2008) say that it is ironic that given the huge amount of research conducted into dyslexia, there is still no "universally accepted definition" (p. 167). (Chapman, 2019; Davis & Braun, 2011; Eide & Eide, 2012) all argue that while the definition is not in itself inaccurate, it is "unduly negative" (Chapman, 2019, p. 1) as it focusses only on the challenges dyslexic thinkers face and none of the benefits or strengths often associated with it. In West (2017) book "Seeing what others cannot see", he highlights dyslexic thinkers' creativity, visual-spatial skills and ability to think "outside the box". An exploratory study conducted in 2004 compared the level of creativity of dyslexic students with non-dyslexic students using the "Torrance Tests of Creative Thinking". The results of the study found that across all grade levels, dyslexic students demonstrated a greater ability to generate a large number of ideas,

and additionally, their ideas were deemed to be more original than the non-dyslexic thinkers' responses (Cockcroft & Hartgill, 2004).

Dyslexia affects between three and twenty percent of the population, depending on the definition that is applied and what statistics are referred to (Nicholson & Dymock, 2015; Shaywitz, 2005; Snowling, 2013). However, most researchers in the field estimate that dyslexic thinkers make up approximately ten percent of the population, making it a sizeable proportion of students in our schools.

Experts in the field agree that dyslexia is classified as both a genetic and neurological disorder (Ozernov-Palchik & Gaab, 2016; Snowling, 2013; Xia, Hoeft, Zhang, & Shu, 2016). Gaab (2019) states that children with a parent or sibling with dyslexia have between a forty to sixty percent chance of also having dyslexia. However, experts do not know what causes some people to be dyslexic and others not (Nicholson & Dymock, 2015). What they do know is that the brain of a dyslexic thinker is different in both structure and function, particularly in the areas of the brain that have been identified as supporting reading (Dehaene, 2009; Ozernov-Palchik & Gaab, 2016). Based on neuroimaging, this difference in the brain is believed to exist from birth, preceding any reading instruction (Ozernov-Palchik & Gaab, 2016).

A longitudinal study published in 2010 tracked the academic progress of a group of American school students from kindergarten through to grade 12. One of the outcomes of the study was a revised definition of dyslexia, defining it as "an unexpected difficulty in reading in individuals who otherwise possess the intelligence and motivation considered necessary for fluent reading, and who also have had reasonable reading instruction" (Ferrer, Shaywitz, Holahan, Marchione, & Shaywitz, 2010, p. 93). Many researchers who focus on dyslexia use the term "unexpected difficulty" (Nicolson & Fawcett, 2010; Tunmer & Greaney, 2010), suggesting that the difficulty these students are having in subjects such as reading is in contrast to their achievement in other areas.

Studies have been conducted to determine if there is a link between reading development and IQ. The general consensus by researchers (Ferrer et al., 2010; Gresham & Vellutino, 2010; Ozernov-Palchik & Gaab, 2016; Snowling, 2013) is that if students have a specific

learning disability such as dyslexia, then IQ is not predictive of students' reading achievement or overall prognosis. While Nicolson and Fawcett (2010) agree with this research, they challenge why one of the indicators of dyslexia is often described as lower than expected reading levels, for example, 'two years behind'. They argue that this is defining dyslexia using intelligence as a measuring stick, making it an inaccurate indicator and believe that "intelligence is irrelevant" (p. 24). The latest report published by the New Zealand Ministry of Education, "About Dyslexia- Supporting literacy in the classroom" (2020) clearly states that "dyslexia is not an intellectual impairment" (p. 4), meaning that dyslexia is not connected to intelligence but independent of intelligence.

In the last twenty years, much research has been conducted into how and why dyslexic thinkers think the way they do. According to Nicolson and Fawcett (2010), in the 1980s, "dyslexia was discounted in educational circles as a 'middle class myth'" (p. vii). Educators and researchers have come a long way in their understanding of dyslexia, however the difficulties lie in the unique way that dyslexia presents in individuals because "dyslexic processing isn't caused by a single gene, different individuals with dyslexia will show different patterns of strengths and challenges" (Eide & Eide, 2012, p. xviii).

This research seeks to understand educational leaders' perspectives and understandings around dyslexia. While not discounting that dyslexic thinking can create challenges in some areas of academic learning, it is, as Eide and Eide (2012) describe, "only one piece of a much larger picture" (p. 5). Using the research that has already been carried out into dyslexia, it is now time to reassess how we can best meet the unique needs of dyslexic thinkers.

In recent years, a movement has started within the dyslexic community which seeks to recognise the unique strengths that dyslexic thinkers have. Richard Branson has founded a charity - *Made by Dyslexia* - which aims to change the way people think about dyslexia. Successful dyslexic thinkers such as Jamie Oliver, John Chambers and Charles Schwab openly attribute their success to the different way they think due to being dyslexic and believe this should be celebrated rather than being considered something to be ashamed of. Particular industries seem to attract more dyslexic thinkers due to the skill sets they possess. While not a scientific study, Valerie Delahaye estimates that "about half of all computer graphic artists are probably dyslexic" (West, 2017, p. 98). Thirty-five percent of entrepreneurs in a

study conducted in the United States are dyslexic (Eide & Eide, 2012), and 26 percent of first-year engineering students at Harper Adams University College were considered severely dyslexic (Eide & Eide, 2012). These statistics suggest that while the majority of experts consider approximately ten percent of the population to be dyslexic, the proportions of dyslexic thinkers may be higher in some sectors due to the skills required.

For the purposes of this research, the definition from Ferrer et al. (2010) will be used to define dyslexia throughout the remainder of this study - “an unexpected difficulty in reading in individuals who otherwise possess the intelligence and motivation considered necessary for fluent reading, and who also have had reasonable reading instruction” (p. 93).

### The impact of dyslexia on student learning

School is a compulsory part of modern-day society, and school experience varies widely between individuals. Ring and Black (2018) argue that “the presence of a learning disability has a profound impact on a child’s success in school” (p. 104). The challenges faced by dyslexic thinkers vary in size and scope depending on severity. Dyslexia is often referred to as a “multiple-deficit” disorder because there is no one main cause or factor attributed to how dyslexic thinkers think or present (Ring & Black, 2018). *Phonological processing* is a common problem for most dyslexic thinkers (Ring & Black, 2018), with Eide and Eide (2012) stating that “at least 80 to 90 percent” of dyslexic thinkers struggle in this area (p. 23). This can display itself with difficulties in segmenting sounds and discriminating between sounds, making the forming and decoding of words incredibly difficult for dyslexic students.

Rote learning and rule-based skills are often tricky for dyslexic students, with Eide and Eide (2012) reporting that about half of dyslexic thinkers struggle with “procedural learning” (p. 26). The English language is particularly difficult for dyslexic thinkers because of the many rules and exceptions, whereas languages like Japanese are far easier to master due to their simpler structure (Wolf & Stoodley, 2008).

Delayed speech, difficulties in rhyming, sounding out words, segmenting and manipulating words all led to dyslexic students primarily struggling to read and spell. For some dyslexic students, mathematics also proves to be difficult with a struggle initially in number

identification, then rote learning of times tables and solving rule-based problems such as calculating the square root of a number (Eide & Eide, 2012; Shaywitz, 2005).

As mentioned above, intervention programmes for dyslexic students tend to start once students have failed to meet the reading markers of their peers, around Year 2 or 3 of school (Nicholson & Dymock, 2015; Ozernov-Palchik & Gaab, 2016). Meta-analysis reports show that early intervention for dyslexic students is the most effective form, stating that this should be taking place between kindergarten and Year 1. Ozernov-Palchik and Gaab (2016) describe this as the “dyslexia paradox” (p. 157), meaning that typically students are identified after the most effective time for intervention.

On the flipside, the strengths of dyslexic thinkers can also be varied and somewhat abstract (Davis & Braun, 2011). Wolf and Stoodley (2008) describe dyslexia as an “untidy mix of genetic talents and cultural weaknesses” (p. 227). West (2017) proposes that dyslexic thinkers see “things that others could not see” (p. 14). Some dyslexic thinkers explain that they see words and ideas primarily as pictures, images are often multidimensional, and their imaginations enable them to think through new ideas all the way through to completion (Davis & Braun, 2011). Creativity is a characteristic associated with dyslexic thinkers, and while difficult to measure, a number of researchers in this field have made this link (Cockcroft & Hartgill, 2004; Eide & Eide, 2012; Wolf & Stoodley, 2008). Recognising patterns, problem-solving, understanding abstract ideas and or seeing relationships or gaps between information and ideas are some of the advantages or strengths that Eide and Eide (2012) identify in their book “The dyslexic advantage”, arguing that these strengths vary in both their nature and degree from person to person. Wolf and Stoodley (2008) explain that the right hemisphere of the brain tends to be more developed in dyslexic thinkers. But just like the chicken and the egg argument, scientists are yet to determine if the greater development of the right hemisphere of the brain naturally occurs in dyslexic thinkers or if the weakness in the left hemisphere forces the development in the right hemisphere.

The challenges detailed above are systematic features of dyslexia, meaning that because dyslexic thinkers think differently, they struggle with aspects of schooling that non-dyslexic thinkers do not. In 2006, it was reported that eleven percent of all school leavers in New Zealand had no formal qualifications (Education Counts). While this statistic does not refer

to the number of school leavers with dyslexia, we do know that language-based needs make up the largest proportion of all learning needs in schools (Moats, 2014). A newspaper article published in 2006 reported that in New Zealand prisons, two-thirds of inmates lacked basic literacy skills (George, 2006), inferring a link between illiteracy and crime due to lack of opportunities and job options. These statistics correlate with the findings of an American study which linked poor academic achievement with incarceration (Grigorenko, 2006). In 2018, a study in New Zealand prisons discovered that forty-nine percent of prisoners “showed evidence of significant dyslexia” (Stewart, 2019). These statistics combined with statistics mentioned earlier about successful dyslexic thinkers suggest that much more needs to be done in our education system to meet the needs of all dyslexic thinkers so that they are equipped with the skills to fully reach their potential.

As educators, we need to be mindful of the language we use with all students; we know that our words matter. Dyslexic students are aware that they are different, and as a result, they often need to spend more time on tasks and work harder than their peers, and yet still their progress is slower than non-dyslexic thinkers in certain tasks. This can lead to low self-esteem, anxiety, feeling “stupid”, anger issues and depression (Al-Lamki, 2012; Gaab, 2019; New Zealand Ministry of Education, 2020; Nicolson & Fawcett, 2010). To help guard against these negative mindsets and emotions, it is important that educators empower dyslexic students to see beyond their disability and recognise what they can do well. This might be helping students to understand how they learn best, increasing student agency and assisting students to develop positive self-talk and self-image.

As a generalisation, dyslexia is understood as a learning disability or disorder in both education and by society as a whole, but some researchers (Eide & Eide, 2012; West, 2017) challenge this by suggesting that it is instead a different way of thinking. Put simply, dyslexic thinkers think differently to non-dyslexic thinkers and hence should be taught differently. They argue that educators need to take the focus off what dyslexic students find difficult and find a way to celebrate and challenge them in their areas of strength, such as visual thinking. Nicolson and Fawcett (2010) discuss the importance of creating attainable goals, celebrating progress, developing resilience, being flexible and allowing interests and passions to guide learning and projects.



## The New Zealand context: recognition and support for dyslexic thinkers

Dyslexia was officially recognised by the Ministry of Education in New Zealand in 2007 (Tunmer & Greaney, 2010). Prior to this, dyslexia was generically clumped together into a group called “struggling readers”.

The International Dyslexia Association defines dyslexia as a disability. Section 8 of the New Zealand Education Act 1989 ensures that all students have the equal right to receive a public education regardless of their disability ("Education Act," 1989), making education the responsibility of the Ministry of Education. Unfortunately, many children require additional support that schools cannot provide due to lack of funding. These additional costs then fall onto parents (Breitnauer, 2019; Hanford, 2018).

The New Zealand Curriculum (2007) is the foundational document for the education of New Zealand school years 1-13. The vision outlined in the document is that “all young people will be confident, connected, actively involved, lifelong learners” (New Zealand Ministry of Education, 2007, p. 8). The de-centralised nature of the New Zealand education system allows each school to interpret this in a way that is relevant to their community of learners, while at the same time, the Ministry recognises this is a challenge due to the diverse range of students and contexts. This flexibility allows schools to be strategic and intentional in their strategies. The “Teaching as Inquiry” model guides New Zealand educators’ thinking, challenging them to question, reflect, change and refine their thinking in order to best meet the needs of their students. The purpose of the model according to Conner (2015) is to improve “the quality of teaching” and “redress inequity” (p. 1), meaning that schools can tackle dyslexia and other learning using different approaches.

Adrienne Alton-Lee (2011), a leading education researcher in New Zealand, suggests that society is currently demanding more from schools, wanting to see all students achieving success regardless of their differences. In particular, this puts pressure on schools and educational leaders to focus on students that sit outside the norm. This, according to Alton-Lee, goes beyond individualised and personalised learning; it requires educators’ practice to be informed through research (Alton-Lee, 2011). This is a challenge that Hargreaves (2007) also presented to the field of education, challenging both education researchers and teachers to work together collaboratively to achieve “radical change”, whereby researchers

and practitioners work hand-in-hand towards the creation of a “research-based profession” (p. 1). Hargreaves argues that for dissemination to occur, dialogue and reciprocity is required by both parties. Research should be informing the way school leaders lead and teachers teach.

A survey conducted by Nicholson and Dymock (2015) uncovered that most schools in New Zealand feel ill-equipped to teach dyslexic students. Teacher training institutions do not include much specialist training for teaching dyslexic students or specifically how to teach the fundamentals of basic reading (Moats, 2014). An Australian study revealed that parents had a mixed response from schools in terms of supporting and catering for their dyslexic children. A number of parents in this study transferred their children to more “dyslexia friendly schools”, paid for additional tutoring, and spent considerable time helping their children with homework (Leitão et al., 2017). Parents in this study were critical of the Australian Government and cited that more training and support should be provided to teachers about dyslexia, and subsequently more resources for schools in this area. It seems likely a similar situation exists in New Zealand.

Every three years, the OECD produces a report on the Programme for International Student Assessment (PISA), which compares fifteen-year-old students in seventy countries. In 2009, the focus of the report was reading. The results for New Zealand show that there was no significant statistical change in the number of students considered to be “low performing” in 2000, compared with 2009, indicating that no measurable progress has been made in this area over this nine-year time period (OECD, 2010). Currently, the New Zealand Government is seeking to address this issue with the publication of The Learning Support Action Plan 2019-2025 (LSAP). A select committee in 2016 investigated how students with dyslexia, dyspraxia and autism were identified and supported in New Zealand schools. They found that schools had an “inconsistent and variable approach” (Ministry of Education New Zealand, 2019) and were not satisfactorily meeting the needs of these students. They challenged the Ministry of Education to provide additional support and education to teachers and teacher aides with dyslexic, dyspraxic and autistic students. The LSAP seeks to provide a range of different learning environments, to meet the needs of all students, improve screening and early intervention and find ways to meet the needs of disengaged

students. The plan is ambitious, but it is not sufficient. Further professional development is needed in this area for school leaders, teachers, and teacher aides.

Further, this year the New Zealand Ministry of Education published the “Kete”, a document titled “About Dyslexia- supporting literacy in the classroom”. The Kete acknowledges that as individuals, we all think and learn differently, and as educators, we need to accommodate for these differences in the way we teach. Outlined in the document is what is called an ‘inclusive’ approach, which states that educators need to “acknowledge difference” and “recognise strengths”(New Zealand Ministry of Education, 2020, p. 7) of all learners, but in this case focussing on dyslexic students. The Kete also calls for a “strength-based approach” (p. 3) to be used with dyslexic thinkers. This latest publication by the Ministry is encouraging in light of the focus of this research.

### Education leaders: roles and responsibilities

The most prominent leader in a school is the principal, and as the educational leader their role is “an interdisciplinary dynamic, multidimensional process that is context embedded and specific to people, places and time” (Santamaría & Santamaría, 2015, p. 23). It is a job that is both “diverse and complex” (Ogram & Youngs, 2014, p. 17), requiring the juggling of administrative tasks with leadership activities. According to Cardno (2012), “the leader’s role is to reconcile conflicting demands and desires to achieve what is best for the organisation and for the individuals in it... focused on the achievement of learners” (p. 15).

*Teaching as Inquiry* is at the heart of the New Zealand Curriculum document and sets the foundation for how educators go about “improv(ing) outcomes for all students” (New Zealand Ministry of Education, 2007), with the emphasis on “all students”. Blankstein, Noguera, and Kelly (2016) acknowledge that for school leaders to strive for excellence and ensure that every child is successful requires courage from the leader. Successful leaders are those who can see the potential and are prepared to step outside the box to achieve it.

The New Zealand Ministry of Education recognises that “one in five children and young people need some kind of extra support for their learning” (Ministry of Education New Zealand, 2019, p. 4). This additional support is primarily catered for by the school, meaning that twenty percent of a school population requires additional thought and consideration to

ensure that their learning needs are catered for. Dyslexic students make up anywhere from three to ten percent of any school population (Shaywitz, 2005; Snowling, 2013). According to the 2016 Select Committee inquiry into students with dyslexia, dyspraxia and autism spectrum disorder, more needs to be done to support these learners. The report called for more funding, further teacher training to ensure teachers felt equipped to meet the needs of these students and a shift in the culture of some schools so that learning environments are inclusive and supportive of children with learning needs (Yang, 2016). While I cannot imagine any school principal disagreeing with these findings, the challenge they face is that they are responsible to “multiple stakeholders and invariably there are very many educational purposes to be achieved” (Cardno, 2012, p. 1). Furthermore, as Ogram and Youngs (2014) point out, New Zealand school principals are time poor and are often “expected to be ‘all things to everyone’” (p. 19).

The meta-analysis research of V. Robinson (2011) revealed that one of the most effective and influential ways that school leaders can improve student learning is through leading learning in their schools. The “Best Evidence Synthesis Iteration” (BES), conducted by the New Zealand Ministry of Education, showed that the most beneficial leadership practice for improving student achievement is “when school leaders promote and/or participate in effective professional learning and development” (Alton-Lee, 2011, p. 303). Education leaders need to be strategic to ensure that their schools have a shared understanding and approach to how they intend to improve student learning and outcomes. “The nature and quality of professional learning and development” (p. 311) is critical. The 2016 government inquiry called for greater teacher knowledge into dyslexia, dyspraxia and autism. This requires school leaders and teachers to have professional development in this area to ensure that educators across the board feel confident, capable and supported so that they can effectively teach these students.

The teaching of reading is complex (Dehaene, 2009; Moats, 2009; Soler, 2017). The brains of dyslexic thinkers think and process differently to non-dyslexic thinkers, so it is important that educators know and understand these differences and can effectively differentiate their teaching to meet the needs of these students. Unfortunately, most universities and teacher training institutions do not give adequate time or attention to this, and teachers, as a result, are unprepared for the challenge of teaching reading to a diverse range of students

(Brady et al., 2009; Hanford, 2018; Moats, 2014). Consequently, New Zealand school principals need to meet this need and fill this gap through professional development of their educators. Conner (2015) maintains that this requires both the structure and the culture of the school to be supportive of change and open to development.

The 2016 Inquiry (Yang, 2016) highlighted the need for early screening of students for learning difficulties such as dyslexia. While formal testing is not required by the Ministry, parents are often encouraged to get their child tested through an educational psychologist to identify what the area of learning difficulty is. These tests are costly, meaning they are not a viable option for many families. The frustrating thing is that as early as the 1980s, Bradley and Bryant (1983) identified that the ability to rhyme in preschool children was an indicator of reading success in the future. Screening tests are now available to identify preschool children that are deemed at risk of having learning difficulties associated with reading (Shaywitz, 2005; Snowling, 2013). As Gabb (2019) argues, “we have the knowledge and skill to screen millions of children, and yet the rate of low literacy levels will not change if we do not implement adequate early intervention protocols and ensure high quality reading instruction”. Early intervention is considered the most effective way of supporting students with learning difficulties “due to the heightened plasticity for brain networks” (Gaab, 2019, p. 3). However, in New Zealand, like in many other countries, it is not until children are identified as ‘priority learners’ or at least a year behind that intervention or testing is conducted to determine the issue. Gaab (2019) describes this as the “wait-to fail approach” (p. 3) or the “dyslexia paradox” (p. 157), as described by Ozernov-Palchik and Gaab (2016).

In New Zealand, schools are largely self-governed and managed while remaining subject to the policies outlined by the New Zealand Ministry of Education and the New Zealand Curriculum. However, according to Cardno (2012), most school principals in New Zealand fail to avail themselves to the full extent of this freedom. As leaders of learning in schools, principals are accountable to the school Board of Trustees and parents. Therefore, it is educational leaders’ responsibility to avail their schools of early screening tests to ensure that students with learning needs are given targeted, intentional, research-based assistance early on. (Note that while education psychologist reports identifying dyslexia are costly, there are alternative options available that assess students risk level for dyslexia. These are

low-cost alternatives that can be used with children prior to starting school, such as looking at family history and the ability to rhyme and distinguish between individual phonemes).

### Recognising Dyslexic strengths in a school setting

Historically, researchers and educators' attention has been on the difficulties that dyslexic students face (Cockcroft & Hartgill, 2004; Eide & Eide, 2012; West, 2017). The focus has been on 'fixing' students so that they can learn to read and write using the same measuring tools and methods as non-dyslexic thinkers. As a result, students were and still are defined by their 'problem'. In the 2016 New Zealand inquiry, some submissions received from parents highlighted that they "felt that, from an early age, children with dyslexia (were) being labelled as 'failure(s)'" (Yang, 2016, p. 20). Nicholson and Dymock (2015), through their New Zealand research, identified that dyslexic students who struggle in school found that it impacted on their peer interactions and often resulted in feelings of embarrassment. These beliefs, while difficult to measure, are incredibly detrimental to students' wellbeing. Gaab (2019) strongly argues that as educators, "we want to move away from a 'failure' model to an early 'support' model from a deficit-focussed to a preventive approach." (p. 3). Shaywitz (2005) concurs with this, arguing that change is needed in the way we treat and work with dyslexic students, and stating that we need to allow a child's strengths to shine rather than their weaknesses.

To move from a deficit-based model to a strength-focussed model does not mean we ignore the areas that students find difficult, but rather, we do not allow their weaknesses to define them. Shaywitz (2005), both a researcher in dyslexia and an activist for dyslexic students, argues that dyslexic children are already aware of their areas of weakness and that instead of pointing these out, we need to support them, advocate for them, and cheer them on. Like all children, support and encouragement is needed, but as well as this, we need to find and recognise individual students' areas of interest and strength, and this needs to be celebrated, encouraged and fostered.

Before teachers can move to a strength-focussed culture, they need to have a good understanding of what dyslexia is and how it can impact on student learning, self-esteem, and self-worth. Understanding a child as a whole and intentionally looking for the areas of strength such as creativity, thinking outside the box, problem-solving and/or character traits

such as empathy is critical. Effective teaching instruction and communication by teachers is also necessary so students understand learning progressions and that they are both measurable and attainable. Wolf and Stoodley (2008) call for the research about dyslexia to connect with the methods of teaching used in schools. This requires teachers being given a “toolbox of principles” (p. 209) that they can use rather than a ‘one size fits all’ approach.

Ken Robinson has been advocating for significant changes to be made in education for several years. He believes that education today is too compartmentalised, too assessment-focussed and kills creativity (Robinson & Aronica, 2015). As he sees it, “the aims of education are to enable students to understand the world around them and the talents within them so that they can become fulfilled individuals and active, compassionate citizens” (p. xvi). In his book, “Creative Schools”, he refers to The Boston Arts Academy, a school that allows students to focus on their strengths for up to three hours a day and provides support to that student in their areas of weakness. This, in turn, empowers the student in their learning. While this is a secondary school, the question is, how viable is this option in a primary school setting where children are required to learn the basics of reading, writing and mathematics?

A recent study conducted with severely dyslexic students in Canada compared two different teaching strategies used to teach spelling to French-speaking students (Chapleau & Beaupré-Boivin, 2019). The first strategy used a more traditional approach and was described as “remedial”, with the focus being on the knowledge or rules required to learn to spell a specific group of words (an approach commonly used in Canada for teaching spelling). The second approach was called “compensatory”, using a morphemic focus, or in layman terms, focussed on the structure of words. This strategy was chosen by the researchers as previous studies had indicated that dyslexic thinkers were able to connect spelling knowledge and strategies in a way that made sense to them using morphological information. The results of the study found that while students made progress using both strategies, a better knowledge retention and results were achieved using the compensatory approach. Despite the small number of students in this study (twelve), and fact that the study was conducted with French-speaking students; there are some valuable considerations for the New Zealand context. Both languages have an opaque orthography, meaning that each letter can have more than one sound, meaning there are many rules

associated with the spelling of words. Dyslexic students taught using the compensatory approach were overall more 'successful' because the researchers first looked at their strengths and the best approach to learning for their thinking style rather than assuming that all students learn in the same way.

In education circles, a common phrase is that we need to "prepare our children for jobs that do not yet exist", suggesting that uncertainty exists in what students need to know. While this statement is true, we can prepare our students by teaching them the skills that they need to be successful. Wagner and Dintersmith (2015) recommend that we "reimagine education" (p. 222) by exploring ways that our students can become more creative, innovative and be problem-solvers rather than regurgitators. Educators often refer to these as 21<sup>st</sup> Century skills. A report produced for the New Zealand Ministry of Education in 2012 suggested that 21<sup>st</sup> Century learning is more "personalised"; it is about "support(ing) every person to develop to their full potential" (Bolstad et al., 2012, p. 18), which is what advocates for dyslexic students are calling for.

### Leading change in schools

Every school has its own unique culture. The culture is formed by the people who work closely in or with the school (Waters, Marzano, & McNulty, 2005). School culture forms the basis of how leaders approach change and how readily it is received by the staff and community (Osborne, 2014). School principals play a significant role in setting the culture, tone and direction of the school. According to (Robinson & Aronica, 2015), some schools and leadership teams allow the status quo to be their guiding stick by doing things in the same way that they have always been done. However, the autonomy of New Zealand schools gives leaders both the challenge and the opportunity to step up and provide for dyslexic students in innovative ways. To be problem-solvers who see the need for change and seek to remedy the situation; in this case knowing that we can better serve dyslexic students.

When change is required, often our thinking needs to change. In education, this may require a paradigm shift. Osborne (2014) published an article titled "Inviting innovation- leading meaningful change in schools", where he distinguishes between "change management" and "change leadership", arguing that the type of change required impacts on how the process



is managed and led. Waters et al. (2005) distinguish between “first and second-order change” (p. 65). “Second-order change... involves dramatic departures from the expected, both in defining a given problem and in finding a solution” (p. 66). A number of researchers and experts in the field of education have called for dramatic change in the way we teach students regardless of their ability or disability (Eide & Eide, 2012; Gaab, 2019; Osborne, 2014; Robinson & Aronica, 2015; West, 2017). For this to be achieved, “second-order” change is needed. This requires decisive action according to Fullan (1993), who cautions that “schools that go slow and a little at a time end up doing so little that they succeed in only upsetting everything without accruing the benefits of change” (p. 8).

Vision is at the heart of change. Forethought and foresight need to guide vision so that others can grasp hold of it. Osborne (2014) describes this as “the act of painting a picture of the future that is better than the current reality” (p. 5). Vision needs to be sold to and shared with all stakeholders so that the leader receives ‘buy in’. Waters et al. (2005) caution that vision cannot be ‘wishy washy’, and that leaders need to have a strong knowledge of the curriculum and the implications that will result due to the change so that stakeholders feel secure.

Change is scary for many people, and reassurance is required by leaders to both support and lead people through times of change. Osborne (2014) calls for leaders to value and respect people through the process. Clear and timely communication helps to foster a team spirit and facilitate partnership with parents, which is especially crucial for parents with children with learning needs. According to Thaxton Berrett (2019), this relationship is an essential part of making school successful for dyslexic students. When people feel valued and heard, they feel a part of the change and are much more willing to embrace the vision.

Leaders that ‘walk the talk’ or, in other words, who lead by example, are more likely to effectively lead change (Osborne, 2014; Waters et al., 2005). Modelling consistent behaviour and implementing intentional professional development that is embedded into the culture is critical in achieving lasting change.

## Chapter Three: Methodology

Chapter three outlines the process of selecting and honing the appropriate research methodology. Current literature and comparable studies form a basis for the focal point of the research. Various data collection methods are considered and compared, with interviews being determined as the most appropriate form of data collection. The rationale for sample size, participation criteria and ethical consideration are informed through literature and are critically analysed. Data analysis is considered through the paradigm of pragmatism and conducted using a thematic analysis. The rationale for these choices is discussed in this chapter.

### The research context

The aim of this research was to gain an understanding of how dyslexia is understood by New Zealand Primary School principals. Weaknesses, rather than strengths, have tended to be the primary focus of many educators of dyslexic students; however, the New Zealand Ministry of Education's latest report titled 'About Dyslexia: Supporting Literacy in the Classroom' encourages schools to move away from this deficit model to recognise dyslexic thinkers' strengths and different ways of thinking (New Zealand Ministry of Education, 2020).

School principals who were recognised as making this shift, whereby they have transitioned from a deficit to a strength focus, were approached and interviewed with the purpose of gaining an insight into how this could be replicated into other schools throughout New Zealand.

As part of this interview process, leaders were asked to share how their understanding of dyslexia is reflected in the schools they lead.

The research questions that frame this study are:

- 1) Do principals understand both the difficulties and strengths of dyslexic students?
- 2) Are dyslexic students' strengths recognised in school policies and practices?

## Ontology and Epistemology

Social research, at its core, is about understanding how and why people interact with one another and the world around them (Bryman, 2016). Education is a social phenomenon that naturally falls into the category of social research, investigating the changes and developments taking place as a result of external factors. The ontology in this research seeks to identify trends in behaviour, draw conclusions and make recommendations based on the research and data. In this context, the research strives to understand the influence a school leader's understanding of dyslexia has on various aspects of their school.

Epistemology frames the direction of the research, giving structure to how data is collected, interpreted and understood. An interpretivist approach as a means of understanding how each principal's knowledge and perceptions of dyslexia has framed their school's approach and culture was considered by the researcher (Bryman, 2016). This was weighed up against the paradigm of pragmatism. The pragmatic paradigm is a reflective approach of understanding and interpreting the world (Crotty, 1998). It strives to construct knowledge that can be applied in a practical sense. According to Goldkuhl (2012), researchers need to decide between these two approaches, and while similarities do exist, he argues that they cannot operate concurrently. The end product needs to be considered by the researcher; do they wish to gain a greater understanding, or do they want their research to have practical application? In this case, the researcher was interested in the perspectives of school principals and understanding how their knowledge of dyslexia framed their thinking, but also wanted to understand how this could be applied in other school settings. At the outset, the researcher wanted their ideas and practice to be challenged, and so the reflective nature of the pragmatic paradigm was deemed a better fit for this research.

## Research paradigm

The size and style of this project inclined itself towards qualitative study. The nature of qualitative study is that researchers are continuing to make judgements as to the direction that the research will take (Somekh & Lewin, 2011). A pragmatism paradigm allows the researcher to continually reflect throughout the process of the research. This means going beyond just describing dyslexia to digging deeper to discover the 'why' schools have opted to change the way they work with dyslexic thinkers (Blaikie & Priest, 2017; Delamont, 2012;

Morgan, 2014). The pragmatism paradigm applies an inquiry-based model to the research question, which is particularly relevant in education, with the 'inquiry model' underpinning teaching pedagogy and professional development in New Zealand (Cochran-Smith, Barnatt, Friedman, & Pine, 2009). This research project seeks to understand how a principal's understanding of dyslexia informs their policies and practices. The interview questions ask the 'what', the 'why' and the 'how' in order to get the full picture of how this is reflected in practice.

The pragmatism paradigm is a beneficial approach to this inquiry because it allows the researcher's perceptions, understandings and beliefs to develop through the process of the inquiry (Morgan, 2014). Research, at its very core, is about attempting to fill a 'knowledge gap' (Merriam & Tisdell, 2016). The continuous nature of the inquiry model assumes that there are no finite solutions and through the process of continual reflection, informed by research, practice is refined and developed. According to Tripp (2011), reflection is necessary for change to occur. As educators reflect on how they teach, they refine the process. The schools that were interviewed have developed their thinking about dyslexia over time, and their approaches and systems continue to be developed through an inquiry model. The same can be said for the researcher. Through this process of inquiry, their understanding and knowledge base has increased, and practical application has been developed and refined.

## Research design and methods

### Interviews

The method of data collection was carefully considered by the researcher, weighing up the benefits and disadvantages of both questionnaires and interviews. Questionnaires are often used in educational research because they are both quick and reliable (Cohen, Manion, & Morrison, 2017). However, multiple-choice questions, scales, rating systems and closed questions were not appropriate tools to be used in this research that sought to understand principals' perspectives and learn from their knowledge and experience. Semi-structured, open-ended questions in questionnaires, while appropriate in small scale research projects (Cohen et al., 2017), were determined to be 'risky' as they may fail to give the fullness of responses that the researcher was after. It was determined by the researcher that an

interview approach would allow them to probe deeper into the participants' perceptions and perspectives during the interview process (Wellington, 2015) in a way that would not be possible in a questionnaire (Merriam & Tisdell, 2016).

Interviews are a commonly used tool used in qualitative research, acknowledging the participants as more than just data but rather individuals with knowledge to share (Cohen et al., 2017). Semi-structured, one-on-one interviews were chosen as the most effective form of data collection for this project. The semi-structured nature of the interviews permitted the interview to organically progress, giving a greater insight into the individual's school culture and pedagogy (Merriam & Tisdell, 2016). Questions were shared with the interviewee prior to the interview, so that thought and consideration could be put into the responses.

While much research has been conducted into the area of dyslexia, little research has analysed how people's perceptions and knowledge of dyslexia has influenced their practice. A study that investigated the perspectives of dyslexic thinkers and their parents was conducted by Leitão et al. (2017). The purpose of this study was to gain a greater understanding of the psychosocial factors that impact dyslexic students and their families. This qualitative study has similarities not just in attempting to understand different perspectives, but also in their research methods of using face-to-face, semi-structured interviews either in person or via Skype.

The way questions are worded is vital, according to Patton (2014), as the language used determines how the interviewee will both interpret and answer the question. He suggests that in qualitative research, one should avoid loaded questions, meaning they should be singular in nature, yet open-ended enough to provide discussion. Questions should be worded in such a way that they are both unambiguous and impartial. Six questions framed the outline of discussion with each of the participants. The questions were intentionally short and clear, written in such a way to invite the interviewee to share their thoughts and experiences. The questions were initially piloted by the researcher and then modified as a result to provide greater clarity about what was being asked.

The researcher intentionally played a backseat during the interview process to avoid personal bias and influencing the interview conversation. “Leading” and “loaded questions” (Wellington, 2015, pp. 146-147) were avoided to give the interviewee the freedom to share their perspectives, allowing the participants to share in a way that was most natural to them. The principals, as leaders of learning, shared their understanding of dyslexia and how this understanding translated in their school context, which was a critical aspect of this research. The semi-structured interview style allowed participants to share from their heart through personal experiences that happened in their school context. Wellington (2015) suggests that the interviewer should be like a “sponge, soaking up the interviewee’s comments and responses” (p.139), adding to the researchers ‘kete’ of understanding.

Feedback during an interview can be difficult for the researcher to navigate. It is a balancing act between encouraging the participant through non-verbal communication, such as head nodding, and not leading the interviewee (Patton, 2014). This was difficult for the researcher and effort was made to be aware of facial expressions and body language while conducting the interviews.

The initial plan was to conduct face-to-face, in-person interviews with the participants, however, due to Covid-19 and the nationwide lockdown in New Zealand, one interview was conducted in person and the other three interviews were conducted online via Zoom. During the piloting of the research questions, the researcher had conducted one in-person interview and one via Zoom. Having no difficulties with either method during the piloting process was reassuring to the researcher. Newby (2014) reflects that interviewing using online methods is a good alternative when in-person interviewing is not an option. However, he warns that for some participants, this method may be more stressful, especially if they are not adept with technology. One of the challenges with online interviewing, according to Wellington (2015), is that it can be more difficult for both parties to read body language. In all three online interviews this was not the case, and rapport was quickly developed. The video image was clear, and body language and facial expressions were easy to read by both parties.

## Sampling

The small sample size of the research was dictated by two main factors, firstly the size of the research project itself. Being a 60-point dissertation limited the scope of the research project and the number of participants due to the amount of data that would be required to be analysed. Semi-structured interviews provide a vast amount of data to be analysed, and by reducing the number of participants, this was overcome.

The second factor that influenced the sample size was the limited number of participants that met the participation criteria, making purposive sampling necessary. Purposive sampling is not about getting an “average opinion” (Merriam & Tisdell, 2016, p. 96), but rather about obtaining the best sources based on the criteria (Newby, 2014). Participants needed to have knowledge about dyslexia and have some form of authority (in this case, they needed to be a New Zealand primary school principal). As a result of their knowledge, their school was required to be doing something ‘outside the norm’ or distinctly different from other New Zealand schools to cater for their dyslexic learners. The purpose of the interviews was to gain the knowledge and experience these individuals held, with the hope of applying this into other New Zealand schools. The challenge was that the small sample size meant that selecting participants who would add value was crucial.

Cohen et al. (2017) suggest that sample size should be determined upon a range of factors, from types of questions, the data that is being obtained and analysed, and the available resources. While a small sample size fails to provide a range of responses, the nature of ‘purposive sampling’ is that participants are intentionally selected based on what it is perceived that they can contribute to the research (Cohen et al., 2017). The gender of the participants, the school decile rating and ethnic diversity were not factors considered or deemed relevant to this study

## Participants

The participants were New Zealand Primary School principals selected through a non-probability sampling method; the intention being that purposive sampling allowed the researcher to gain understanding from those who were already attempting to cater for dyslexic thinkers (Merriam & Tisdell, 2016). The criteria for participation in the interviews were principals of schools that were identified as being successful with dyslexic students or

were deemed to be doing something out of the ordinary for dyslexic students. The challenge the researcher faced was that very few schools in New Zealand fit these criteria and identifying the ones that did was difficult. In addition, the criteria in itself was subjective and open to interpretation. To overcome these challenges, the researcher relied on their own knowledge and the knowledge of experts in the industry to guide this process. Word of mouth and recommendations assisted with the identification of schools that fitted the criteria.

One school principal who met this criterion and was known to the interviewer was approached and agreed to be a part of this process. Initially, the researcher anticipated using the 'snowball approach' (Merriam & Tisdell, 2016), in that participant number one would be able to recommend other schools that met the criteria. Unfortunately, they were not aware of other schools that fit the criteria. While this was frustrating, it re-emphasised that this is a gap in the New Zealand education system.

Purposive sampling requires researchers to be very intentional about who they interview. The focus needs to be on learning from those who they believe can provide the most insight (Merriam & Tisdell, 2016). The researcher approached three different New Zealand organisations who specialise in dyslexia and or professional development around dyslexia and literacy instruction for dyslexic students for recommendations. Based on these recommendations, school websites were viewed to determine if schools fitted the criteria. School principals were then emailed using a standardised email that met the requirements of Auckland University of Technology's Ethics Committee, asking them if they wished to be a part of the research. A participant information handout (found in the Appendix) was attached so that the potential participant understood the focus of the research and what was required should they choose to participate.

Using the snowball approach then proved to be an effective method of identifying schools that met the criteria. As a generalisation, schools that were on this journey were passionate about the changes they had made and were excited about sharing it.



## Ethical considerations

Ethics is about anticipating various scenarios, mitigating potential issues and avoiding harm where possible. Pickard (2013) argues that while this is ideal, it is impossible to anticipate all issues; therefore, it needs to be an ongoing process, continually reflecting and considering the ethical implications of the decisions we are making as researchers to avoid harm (Miller, Birch, Mauthner, & Jessop, 2012).

In the planning and conducting of interviews, the overall wellbeing of the participants was considered. As a researcher, the purpose of the interview was to gain knowledge, understanding and practical insight into alternative methods of supporting and developing dyslexic students. Respect of and for the participants was paramount in both developing rapport and being open to new ideas and alternative ways of thinking (Wellington, 2015). According to (Miller et al., 2012), the research process should be deemed reciprocal, with both the participants and the researcher seeing value in the process and the conversation. This involves giving participants a 'voice', where they feel they can be heard, their ideas can be valued and for them to contribute to the greater body of research in the area of dyslexia.

Participants were invited to be a part of this research via email. The email included a participation information sheet which detailed the nature of the research and the expectations of the participants. Informed consent is an important ethical consideration when conducting social research (Bryman, 2016). Participants were free to withdraw from the research at any time during the process if they were uncomfortable or simply no longer wished to be involved. Free counselling was offered to participants through AUT if they felt any discomfort, embarrassment or suffered from any distress as a result of the interview process. A time frame of forty-five to sixty minutes was given as an indication of the length of the interview. All four of the interviews were conducted within this time frame.

All data collected in this research is confidential, and participants' anonymity was ensured. During the audio recordings of the interviews, participants were identified as a number; for example, participant number one, two, three and four. No information was taken during the research process that could identify either the schools or their principals, such as locations, decile ratings or number of students.

## Data analysis

Interviews were audio-recorded using Otter, which makes a record of both the oral interview and automatically transcribes the audio into text. Time was spent by the researcher, ensuring that the transcription was accurate and free from errors. The transcriptions were then sent to the participants for verification.

Through the process of checking the transcription, the researcher became familiar with the data, and key themes started to emerge. A comparable study conducted by Leitão et al. (2017) used semi-structured interviews and a thematic approach to data analysis to identify commonalities and themes between the participants. A similar approach was applied in this research, using the thematic approach outlined in Braun and Clarke (2006).

Pragmatism as a paradigm of social research can be applied in both quantitative and qualitative research, but in most cases, researchers use a mixed-method approach (Morgan, 2014). This small research dissertation uses qualitative data only, fusing together an inquiry model with a thematic approach to data analysis. Farjoun, Ansell, and Boin (2015) describe pragmatism as a “problem-solving philosophy” (p. 1787), but Morgan (2014) argues that this is too simplistic, suggesting that an inquiry model is more appropriate as the cyclical nature of the inquiry model indicates that the process involves continual reflection and consideration (as shown below).

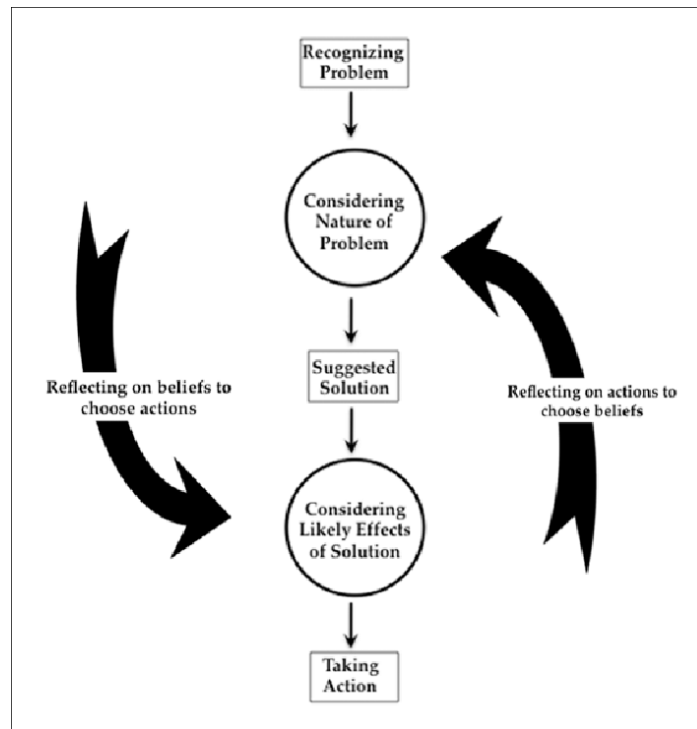


Figure 0-1- Dewey's model of inquiry. (Morgan, 2014)

The challenge with any research project is that there is an end date or final report, so while the researcher can reflect and refine their thinking during the research process, there is a point when conclusions need to be drawn. The interview transcript data has been analysed using a thematic approach to determine patterns and themes between schools and principals. Conclusions were then made as to what has worked and what the process has looked like so that lessons can be learned and applied in the future.

Thematic analysis is a flexible approach to analysis that seeks to find patterns in the data. Braun and Clarke (2006) state that it can be used to “reflect reality and to unpick or unravel the surface of ‘reality’” (p. 81), meaning that it goes beyond the surface level of just using the questions from the interview to determine the data themes, to searching through the data to notice commonalities, ideas and themes. Thematic analysis looks at both the prevalence of ideas and thoughts as well as how these all link together to create themes or patterns.

While a lot has been written about dyslexia in a school context, the vast majority of the data is quantitative. For example, comparing school results, dyslexic versus non-dyslexic children and various methods of teaching dyslexic children and numerically measuring the changes.

The researcher was unable to find any research that sought to understand principals' perceptions or understandings around dyslexia, nor did they find information about a school or a principal's journey of transforming their literacy program or school culture to better support dyslexic students.

### Ensuring objectivity, reliability and validity

Objectivity, reliability and validity were all important considerations for the researcher in determining the research design. Objectivity is about ensuring that the results and the conclusions of the research would be the same regardless of who conducted the research (Pickard, 2013). The researcher recognises that they have a passion for dyslexic thinkers and a desire to create more positive school environments for dyslexic students in New Zealand. Mitigating this, the researcher has used the inquiry model as the basis of this research to continually reflect on and grow in their understanding of dyslexia. The focus was not to come to a particular conclusion, but rather to learn from those further along on the journey. The transcripts of the participants' interviews have determined the themes and conclusions drawn in the results and discussion chapter.

Reliability, according to Bryman (2016), is ensuring that if the study was repeated under the same conditions, the results would be the same or similar. Given the small sample size, the purposive sampling, and the discussion style of the interviews, this is not possible. Instead, reliability is ensured through checking the accuracy of transcripts through the audio recording and participants' confirmation. The insights gained through this research will be useful in informing future research in this area.

The validity of research is firstly ensuring that the intended research methods used have measured what they were intended to measure, and secondly, that the process of data interpretation and application is appropriate and accurate (Cohen et al., 2017). As a researcher, it is about acknowledging our own perspectives, but at the same time being open to the perspectives of the participants being interviewed. In this research, the researcher remained relatively quiet during the interviews to ensure validity. Interviews were conducted in a manner consistent to what was agreed upon in the Auckland University's Ethics Application.

The small sample size was of concern to the researcher. Cohen et al. (2017) state that as a general rule, the bigger the sample size the better. However, the quantity of data obtained through interviews is vast, and the small nature of this research project did not lend itself to a larger sample size. While conclusions can be drawn from the data collected, further research in this area would be valuable in validating the conclusions made.

## Chapter Four: Findings

Chapter Four presents the findings from the data collected from four semi-structured interviews of New Zealand Primary School principals. Face-to-face interviews were conducted in person for Participant One and online via zoom for participants two, three and four. The findings identify the leaders' various understandings of what dyslexia is and how it is displayed in individuals. All four of the participants use a strength-focussed approach in their schools. The practicalities of this and the implications are unique to their school culture and community. Connections can be drawn between the schools' approaches and their understanding of what it means to be strength-focussed for their learners. The format of this chapter follows the structure of the questions used in the interviews.

This research project set out to gain understanding from New Zealand Primary School principals who were considered successful with dyslexic students, and or doing something outside the norm. The purpose of this research was to learn from these school leaders. The semi-structured interviews allowed the participants to openly share their understanding, perspectives, and experiences with the interviewer in a relaxed, conversational manner.

Dyslexia is a complex issue. It is difficult to define and was therefore important to gain insights into the principals' understanding of both the difficulties and strengths associated with dyslexia through the interview process. Discovering how dyslexic students can achieve success is a key focus of this research. How can we make the learning experience positive for dyslexic students in a way that works on their areas of weakness, but at the same time recognises their strengths and allows these to be developed and celebrated?

**Question one: As a principal in a New Zealand Primary School, what do you understand your role to be?**

At the beginning of the interview, the participants were asked to talk about what their role as a principal involved to determine the scope of the job and to understand what they understood their key focus areas to be. All four participants listed numerous tasks and aspects of school life that they oversaw as part of their role. One participant described it as

an “operational role”. Vision for the direction of the school was a key feature. Participants talked about “leading change” and “looking at the big picture”. Staff professional development was discussed multiple times throughout each of the interviews. Being ‘life-long learners’ is a key phrase thrown around in education, and one of the participants said that they wanted not just the children to be continually learning, but also the teachers. This involves having a good understanding of the curriculum and teaching pedagogy, which all four participants raised as important features in their schools.

### Question two: Tell me about your school culture- key aspects.

The culture of a school is its defining feature; it is what makes it distinct. Schools in New Zealand all follow the New Zealand Curriculum, use similar resources, and are all overseen by the New Zealand Ministry of Education, and yet no one school is the same as another. A school’s culture is what separates it from the school down the road. Size, demographics, vision, and leadership styles are some of the influences on school culture. The school cultures represented by the participants who took part in this research are completely different from one another, each serving their community of learners. However, a common thread that ran through each of the responses of the participants was catering for the uniqueness of each child that was in their school.

When asked about school culture, Participant One said that the defining feature of their school was that they were “strength-based”, with their focus being on “uncovering your magic” by finding out what made each child distinct. “Personalised learning” means “get(ting) a richer sense of who a child is” in conjunction with helping each student understand who they are as a learner. “Claim(ing) my profile” was a key phrase used during the interview, helping students recognise that they all have strengths and weaknesses and acknowledging them is a starting point for learning and growing in them.

The second participant characterised their school culture as that of a “family”, meaning that just like a family, “every learner is known and cared for by every staff member”. Being inclusive was essential in this community; they did things all together as a school and worked hard to “know” students as individuals.

The school culture of the third participant was characterised by the key phrase “ready, willing and able to learn together”. Once again, inclusivity and “everyone belongs” was included as a crucial element in this school community. The principal at this school discussed knowing the children and their families in the school and said that it all comes down to relationship, referring to the phrase “it takes a village to raise a child”.

Participant Four recognised and celebrated the 27 distinct cultures represented in their school community. One of their primary foci was “nurturing first language”, and they did this by ensuring that their staff reflected the multi-cultural nature of the school. They offered a range of programmes within the school to support their learners such as full Maori immersion, Maori, Samoan, and Tongan bi-lingual classes as well as the Arrowsmith Programme, which focuses on “growing parts of the brain” particularly aimed at dyslexic thinkers.

### Question three: What do you understand about dyslexia?

The understanding of dyslexia varied between the participants, with some demonstrating a more comprehensive understanding than others. Participant One initially used a metaphor to explain that dyslexia is like driving from Auckland to Wellington, clarifying that there are “different ways that you can go”. She explained that in order to know which route to take, you need to understand the different “manifestations of dyslexia”. In explaining her understanding about dyslexia, she detailed five types of dyslexia: auditory, where children struggle to “differentiate phonemes”; two forms of visual dyslexia - one which causes difficulty with letter orientation, and the other as a magnocellular deficit, which she described as “not able to attend left to right, to stay in track, some people call it behavioural optometry issues”. Next, hemispherical morality described as when the different hemispheres of the brain do not communicate effectively with one another. Lastly, a cerebella deficit, which the participant described as “activation that has to happen right down on that reptilian brain then that goes up through them before you can access your cerebral cortex, which is where your abstract symbols are”. Participant One mentioned that many people have a “stereotypical understanding” of dyslexia, such as “people that flip their letter around or... they can’t read”, but that it is actually more complex than that.



Participant One also discussed the importance of asking parents questions about their children to get to the heart of the diagnosis, such as history of ear infections, grommets, a sensitivity to dairy, hearing that “sounds like they’re underwater”, tracking when reading, ability to cross the midline, crawling, meeting checkpoints, riding a bike, catching a ball, and can they “walk on a balance beam?” She reported that these factors assist in providing clarity around where the difficulty lies for that individual child.

Participant Two understood dyslexia to be about children having “gaps, weaknesses” in language. They have “challenges of learning the code”, their “lack of phonological awareness ... has to be taught and it has to be taught really explicitly for them to be able to decode and encode”. She further expanded on this by saying it is “a child’s inability to really grasp rich language, reading, writing, spelling.” Participant Two also stated that the difficulties start to show at an early age. These language difficulties, however, “don’t sit comfortably alongside other cognitive abilities”, so dyslexic students can have “high oral language (and) high verbal comprehension”. They can be “very creative” but “putting it down, being able to read, write it, is a very different story for them, so it’s a challenge”.

The third participant said that there are four different types of learning difficulties, and dyslexia is one part. She went onto clarify that she did not think “kids that have dyslexia are special needs”. It is about finding out what works for them and their learning. “They are diverse, their brain makes connections in different ways”. Dyslexia can be seen as a difficulty with reading- “it’s to do with sounds and phonemes... letter recognition”, but on the flipside, dyslexic students “also have strengths in... the art space or in creativity or just because of the way (their) brain works”. Participant Three also emphasised that dyslexic thinkers also often need more repetitions than non-dyslexic thinkers, particularly in areas of learning letter sounds.

Participant Four understands dyslexia to be a “learning difference” that often means that “they’re poor at reading, even if it’s familiar words... they have greater difficulty in spelling, even simple words, and they can... reverse letters and reverse words.” They also have “a poor sense of rhyme” and “there’s kind of no fluidity in how they read or attempt to read, and of course they have quite messy handwriting”. Dyslexic students may be identified by teachers due to their slow reading “because they are processing, and they are not quite

sure”, as well as the indicators mentioned above. Participant Four also stated that “the quicker we pick it up, the less self-conscious our kids will be” along with providing earlier intervention and support for the learners.

The responses obtained from the four participants detailing their understanding about dyslexia were varied, but not contradictory. They all recognised dyslexia and the importance of intervention for dyslexic students.

#### Question four: How would you define dyslexia?

The definition of dyslexia as mentioned in the literature review is contentious, but for the purposes of this research, dyslexia is defined as “an unexpected difficulty in reading in individuals who otherwise possess the intelligence and motivation considered necessary for fluent reading, and who also have had reasonable reading instruction” (Ferrer et al., 2010, p. 93).

Participant One defined dyslexia as “simply a term for language-based difficulty”, and then added its “all about neurophysiology”. Participant Two agreed with this, saying that it is a form of neurodiversity, a “lack of phonological awareness”, and an “alternative way of thinking”. Dyslexic students have difficulty in processing in “working memory and executive function”. Participant Three agreed that dyslexia is a “reading difficulty”. She suggested that dyslexic thinkers “use different pathways to gain access to learning to read”. The fourth participant described dyslexia as a “learning difference that affects the way children decode and how they write, their methodologies of... spelling.” She described it as a “visual processing problem”.

#### Question five: How does your school culture/policies/practices recognise dyslexic students’ strengths?

All four of the participants, as part of the criteria for this research, recognised the value of and identified with being a strength-focussed school. However, each participant had a different interpretation of what this looked like in their school setting.

The first participant identified right from the outset of the interview that they were a “strength-based” school, with their philosophy being “uncovering your magic and

understanding that your magic is not cookie cutter". *Whanaungatanga* is one of the school's primary values, meaning to bring someone's "mana up". It is about helping students to identify their strengths and "believe in (their) strengths". The participant describes it as "shed(ding) the masks, heal(ing) the wounds, find(ing) your magic". Shedding the masks is about "claim(ing) your profile", understanding "who am I as a learner?" What are my strengths? What are my areas of weakness? This understanding is "celebrated... warts and all". Personalised learning and small class sizes enable a teacher to "get a richer sense of who a child is" in this setting. The school then offers students with "differentiation and choice". This means "complete choice around project styles, project topics". Participant One points out that it is unusual for the written component to be completely optional in schools, but emphasises that this is essential in ensuring that dyslexic students are successful in their learning.

The strength-based focus at participant One's school starts right from the initial school interview. Students that have been diagnosed with dyslexia are challenged to claim it. During this first interview, the principal explains to students that dyslexia is a "difficulty with language, despite average to superior intelligence". She asks students if they have ever been called "dumb" by teachers, students, or themselves. She explains that "every single time a coconut, somewhere along the line, that word dumb has been used within an external narrative or internal narrative. And that's the heart-breaking part of it." As part of the interview process, she then challenges students to ask themselves how they can be "dumb" if the definition for dyslexia is "despite average to superior intelligence"? She explains that this "disparity between their intelligence and their performance, in one little narrow area, (can) completely ruin their sense of self".

In participant One's school, school assemblies are used as a time to celebrate "things that are said, done, achieved, created" that are outside the box. "Dyslexic role models" are invited to the school to share their "superpower", and famous dyslexic people are studied to inspire students. "It's about removing obstacles" and giving students the opportunity to dream big. Aspects of Psychology are intentionally taught, so students understand the way the brain thinks and works.

The culture of family was emphasised by Participant Two as a key value in their school when discussing how they recognise dyslexic students' strengths. The focus being on "inclusive(ity)". Participant Two identified that "each child comes with their own individual strengths and areas for development, and they have to be accepted". In this school, one of the strength focuses was the "strong connections with whanau", which was considered "absolutely crucial". Right from enrolment, the school understands their role to be in partnership with parents, acknowledging that parents know their child best. Communication with parents and the transition between the early childhood centres were deemed an important part in the initial phase of getting to know the learner.

Participant Two identified one of their key areas of strength was their "explicit, systematic, structured literacy approach". "Multi-sensory", "multiple different times, multiple different ways" and "spaced learning" were concepts all mentioned by Participant Two. While these practices are not recognising dyslexic student's strengths, they are all approaches that dyslexic students find beneficial to their learning.

The importance of early identification of dyslexic students was highlighted by Participant Two several times during the interview. This principal emphasised the importance of having a formal assessment and then the school working in conjunction with the parents. The important factor being communicating with parents that "we can absolutely, wholeheartedly provide for this child, and there's no stigma, no shame... This is something actually that we celebrate... we acknowledge and celebrate our neurodiverse".

Teacher professional development is a key focus in Participant Two's school. The shared understanding being that "the more we learn and the more we understand as staff, the better we are prepared to be able to support" all our students, including our neurodiverse.

Strength-focussed learning in Participant Two's school acknowledges the importance of the "design of learning". It is about "modifying learning" and "making accommodations if required". The importance of knowing the learners and how they learn best as individuals is noted. For example, are they easily distracted or stressed? It may be about giving them a choice around how work is presented, emphasising that work does not always need to be in written form. The school also runs a gifted and talented programme, which many of their

neurodiverse students are a part of, putting the focus onto allowing these students' "strengths ... to be highlighted" and providing an opportunity for them to be able to "shine".

Participant Three says that they have "always worked on strengths and a strength-based approach". In their school context, this is referred to as "TAPS- talents and passions". Dyslexic students' strengths are recognised in the same way as non-dyslexic students, and the language used in their school is "neurotypical and neurodiverse". Last year, they were the pilot school for a programme called 'Children's University', which recognises "children's learning outside of the nine to three classroom". Many of the school's neurodiverse students were involved in this programme and were in many cases the "kids who succeeded the most". Participant Three says that it is about recognising strengths "outside of reading, writing and maths".

Another key part of their strength-focussed approach, which was a common theme among all other participants was on the importance of knowing students as individuals. "Because we're small, we know everybody, then we can build on these strengths. So, it's about knowing what it is they like to spend time outside of (school doing or) that they're mad about art or there's a particular subject that is of interest to them." Participant Three suggests that it is also important for parents to see their children's strengths, particularly for students who struggle at school. She recognises that for these children, "the pressure is huge".

Strength-focussed and recognising success dovetail with one another, according to Participant Three. Firstly, we need to "acknowledge success" but also recognising that "success looks different for every kid... success is not a one-stop model." She gives the example of one child in her school who struggles with literacy, reporting that for this child, learning one letter sound is a huge achievement, whereas for another child it may be something else.

Participant Four is from a school that identifies as being strength-focussed and says it is about "look(ing) for the good in people". She begins by emphasising, like the other participants, the importance of early diagnosis and rich literacy programmes. The school uses the Arrowsmith Programme, which is a neuroplasticity programme that focuses on

“growing parts of the brain” for dyslexic thinkers. The programme is designed in such a way where students “are racing against themselves, not others”. The school has seen “huge success” with the programme and have students travelling long distances to take part in it.

Another strength identified by Participant Four was their “wraparound service”, employing “counsellors..., health nurse, our own social skills personnel, our own Hauora Leader who coordinates all of our special needs students... there’s a whole group” that work together to “take away the responsibility from the teachers... so that teachers can teach”. According to Participant Four, being a strength-focussed school not only focuses on students’ strengths, but also allows everyone in the school to work from their strengths. This team of people focus on the students as individuals and seek to understand their learning. For students who are not progressing as expected, the question asked is: “What is stopping them from progressing the way they should be?” Factors such as their hearing, eyesight, language (first or second language learners) and their history of rich literacy programme experiences as vital to know. Similarly, to the other participants, Participant Four emphasised the importance of knowing each student as an individual; what makes them tick and what makes them unique?

### Question six: What do you think are the implications of having a strength-focussed approach with dyslexic students?

Each of the participants involved in this research have intentionally employed a strength-focussed approach in their school, suggesting that this is something they value and see as worth putting time and resources towards. When asked about the implications of a strength-focussed approach with dyslexic students, Participant One’s response was: “Every single day, I go home knowing that what I’ve done matters. We save lives, we save families.” She then goes on to recount a story of a dyslexic student at their school who, at a low point, saw no value in his life: “I hate me, I’m the worst child”. She goes onto add, “There is nothing more important than this. Because for these children, it is the disparity between their intelligence and their performance in one narrow area that completely ruins their sense of self. We cannot be having that.” She then goes on to describe another child and explains when “you remove the limits, you remove the self-imposed constraints, the

observational comparisons where they're looking at their worst compared to somebody else's best... (that's when you) change the world."

Participant Two highlights that a strength-focussed approach gives everyone the opportunity "to be able to shine". At the end of the day, the focus is that "every child deserves to have the very best opportunity and deserves to have an education that is actually catering for their needs". A strength-focussed approach is one way that the school can provide this.

The third participant reflected that it is difficult to measure the implications of moving towards a strength-focussed approach. In their school in the last two years, they have introduced a "structured approach" to literacy and "the graphs look great", but it is the flow-on effects that she is more interested in - "it's about feeling good about yourself." Using the "five pillars of wellbeing", the school is tracking learners' emotional wellbeing, but she acknowledges that this is a difficult thing to measure. She concludes that "it's not a magic bullet", and the journey has not been "smooth", but "we'll never leave it now; we'll just keep going".

Participant Four describes the implications of a strength-focussed approach: "It's the comments back from the parents that you know really give you a big boost... It's the children catching a ferry, a train and a bus to be a part of the Arrowsmith Programme... It is the parents who have moved out of the area but travel to keep their children in the school." All of these things contribute to knowing you're doing the right thing", but at the same time acknowledging that it is a journey and "we'll beaver on and be here for our kids."

## Summary

This chapter has presented the findings of four semi-structured one-on-one interviews investigating the implications of using a strength-focussed approach with dyslexic students. The study investigates the role that New Zealand Primary School principals play in developing and leading a strength-focussed culture in their school and how their understandings of what dyslexia informs their approach. The results presented here represent four principal's views of what this looks like.

Three themes have emerged from the data; firstly the importance of knowing our learners as individuals; secondly, the value of intentional professional development for teaching staff; and thirdly, the understanding that becoming a strength-focussed school is a journey, not a destination.



## Chapter Five: Discussion of findings

Chapter Five brings together the overall findings from the research interviews, linking them to the conclusions drawn in the literature review. This chapter is arranged by the three key themes that emerged through the interview process. Firstly, the importance of knowing our learners as individuals. Secondly, the value of intentional professional development for teaching staff. Thirdly, the understanding that becoming a strength-focussed school is a journey, not a destination. The limitations of this study are discussed at the end of this chapter, as well as recommendations for future study in the area of dyslexia and strength-focussed primary schools in New Zealand.

### Introduction

The aim of this study was to examine what education leaders understand about dyslexia and to determine how they are creating a culture of success for dyslexic students in their schools. This year (2020), the New Zealand Ministry of Education published a report called “About Dyslexia”, stating that schools should “support students to see themselves as successful learners by identifying and building on the strengths, knowledge, and skills that students already have. Design learning experiences that value and connect to individual strengths” (New Zealand Ministry of Education, 2020, p. 18). This is a big task for schools to undertake if they are to fully embrace the completeness of this challenge. The schools interviewed as part of this research were already on this journey, but acknowledged that their schools were atypical and that the journey to venture down this path was “one massive learning curve”, but one that was “lifechanging”.

### Theme one: The importance of knowing learners as individuals

A key theme that emerged from all the participants in this research project was the importance of understanding that each child is unique. Within the school context, we need to recognise and appreciate individuality and the diversity this creates. Every child has their own individual set of strengths, areas for growth, weaknesses, and talents that are shaped by their culture, family background, and socio-economic situation. The combination of these creates the uniqueness of each individual learner that enters the school gates. The

recognition and understanding of a child as a unique individual is particularly important for students who sit 'outside the norm' and require additional support and attention, such as dyslexic students. This idea is supported by an Australian study that investigated the perceptions of children with dyslexia and their parents, finding that schools that had a 'child-centred focus' (meaning they focussed on understanding the student as an individual) were perceived as more successful for dyslexic students by their parents (Leitão et al., 2017). Knowing a child and appreciating their uniqueness was displayed and highlighted in different ways by the four participants' schools, but the common thread was that the implications of embracing this mindset impact on multiple facets of school life. School culture, induction of new staff, students and families, school policies, allowances and adaptations to students learning, curriculum content and presentation are just some of the ways the participant schools considered the child as a unique learner.

As a part of knowing learners as individuals, the findings identified the importance of knowing students' families and being in close communication with them, with the understanding that we are all on the same 'team', working together to best meet the needs of the students and giving them opportunities to flourish. This idea is supported by Bywater and Webster-Stratton (2015), who believe that when parents and teachers partner together, it is beneficial to a child's emotional, social, and academic wellbeing.

To know learners as individuals is to understand them. Early identification has been highlighted as a key factor in supporting dyslexic students in their journey by both the participants, the LSAP (Ministry of Education New Zealand, 2019), and key researchers in the field of dyslexia (Brady et al., 2009; Dehaene, 2009; Eide & Eide, 2012; Gaab, 2019; Ozernov-Palchik & Gaab, 2016). While debate exists about the value of using the dyslexia 'label' between participants, there is agreement that early diagnosis and intervention are critical, due to the greater plasticity of the brain (Gaab, 2019) and reduced psychosocial side effects for dyslexic students (Ozernov-Palchik & Gaab, 2016). Early identification is about getting to the heart of the issue with a student. In terms of identifying dyslexic students, participants talked about things 'not adding up', with students' ability in some areas not matching what students could do in other areas. The participants saw the assessment or identification of dyslexia as being about understanding the 'why' and pinpointing where the issue was to best help the student in their learning.

The “Matthew Effect” is a phrase coined by Merton (1968) and is based on the Biblical parable of the talents. This concept of the ‘rich getting richer and the poor getting poorer’ was initially used in the field of science. Subsequently, many academics have applied this phrase to a myriad of different disciplines. In terms of reading, van Bergen et al. (2018) studied siblings and twins in the Netherlands and determined that students who were good readers read more than children who found it difficult, therefore, the more able readers gained more reading mileage and progressed faster, making the gap between the more able students and less able wider and wider, hence the Matthew Effect. In their research, van Bergen et al. (2018) highlighted that the earlier children are identified as dyslexic, then the faster interventions can put in place and hence alleviate the Matthew Effect. Whilst none of the participants in this study explicitly mentioned the Matthew Effect, they did highlight the importance of early intervention for dyslexic students, otherwise the gap would continue to grow.

Early dyslexia diagnosis has been emphasised as also being important by students themselves. A study conducted in Australia investigated the various perspectives of dyslexic children and their parents. One aspect of the study considered the students’ experience prior to and following a diagnosis of dyslexia. They found that prior to the diagnosis, students’ self-efficacy was consistently negative across all of the participants. Once diagnosed, the results were more mixed. For the majority of students, being diagnosed as dyslexic provided some relief as it provided answers and opened avenues of support. Whereas for other students, it felt like a life sentence (Leitão et al., 2017).

In 2012, the New Zealand Council for Educational Research produced a report for the New Zealand Ministry of Education titled “Supporting future-oriented learning & teaching- a New Zealand perspective”. The report stated that one of the key principles of education in the 21<sup>st</sup> Century was “personalising learning” (Bolstad et al., 2012, p. 3); arguing that the education system needs to change to fit the learner rather than the learner fit the system. In 2019, the LSAP was published in response to the 2016 Select Committee inquiry, which investigated the ‘Identification and Support for Children and Young People with Dyslexia, Dyspraxia and Autism Spectrum Disorders in Primary and Secondary Schools’. The Select Committee reported that there were “inconsistencies” and “variable approaches” (Ministry of Education New Zealand, 2019, p. 5) used by schools. This has resulted in one of the six

strategic priorities of the LSAP being to provide “additional, more flexible supports for neuro-diverse children and young people” (Ministry of Education New Zealand, 2019, p. 6). This suggests that the Ministry sees this as a key focus area that schools need to put more energy, focus and resources towards, in order to better support their neuro-diverse learners.

As educators, we need to recognise and support the uniqueness of every student. The schools represented in this report were intentional in the way that they worked with and understood their neuro-diverse students, and the culture of the school reflected this. Differentiation was made in the way that student work could be presented, changes were made to how students were assessed, and discussions around what ‘success looked like’ was happening in some of the schools. Accommodations were made by some schools around expectations in terms of school start and finish times. One school provided different types of classes to better meet students’ needs, such as bi-lingual and full Maori immersion classes. According to Yang (2016), how students feel about school leaves a lasting imprint. It impacts on their confidence, their resilience, self-esteem, and how they deal with challenges as an adult. When we acknowledge the child as a unique individual, they feel valued and secure in who they are. To summarise, all the schools in this study highlighted that meeting the needs of the individual student based on their unique needs, strengths, and circumstances is extremely important for enhancing student learning.

## Theme two: The value of intentional professional development and ongoing learning for teaching staff

Effective professional development should be intentional, driven by school leaders’ vision for the school and their students, and based on best evidence. The outcome of investing in professional development is more skilled teachers and improved student outcomes. Resources, both financial and time, need to be invested into professional development for it be effective and lasting (Pont, Nusche, & Moorman, 2008).

Creating a culture of success for dyslexic students in our schools requires intentionality. All the school leaders interviewed in this research were intentional about the type of

professional development that took place in their schools. They could articulate their focus areas, and teacher learning was cumulative and sequentially planned. While not all of the school's foci for professional development was dyslexic students, they were all focussed on upskilling teachers to create better outcomes for students. Two of the four schools had concentrated their professional development on the 'science of reading', using an explicit and systematic approach to teaching reading; an approach which has been proven by numerous experts as being the most effective way to teach reading, and especially beneficial for dyslexic learners (Dehaene, 2009; Hanford, 2018; Pugh & McCardle, 2011; Shaywitz & Shaywitz, 2003). While the focus of this research is not to examine different approaches or programmes, it is important to acknowledge that research has highlighted a lack of teacher knowledge in how to teach reading both here in New Zealand and internationally (Castles, Rastle, & Nation, 2018; Gaab, 2019; McCutchen et al., 2002; Moats, 2009, 2014; Pugh & McCardle, 2011; Redford, 2019). Tunmer et al. (2013) go as far as to suggest that New Zealand's poor international reading statistics are a result a lack of teacher knowledge around the best way to teach reading. Currently, a petition is calling for the government to ensure all Year 1 teachers in New Zealand are trained and teach using explicit and systematic phonics instruction. The petition claims that the current methods of literacy instruction in New Zealand are not inclusive because they do not teach in a manner that best supports dyslexic students learning. Three of the four schools interviewed explicitly highlighted that they teach students to read using explicit and systematic phonics instruction. With respect to the fourth school, the interview did not address this aspect of professional development. This intentionality with respect to improving the way teachers are teaching reading not only assists those students with dyslexia but all students.

One of the primary roles of education leaders is to support their teachers (Cardno, 2012). Providing teachers with relevant, evidence-based professional development that leads to changes in practice is about valuing teachers as professionals and giving them the tools to be the most effective teachers they can be. One participant in this study articulated her role as a principal as being about focusing on her "team": "If I've got a team that has opportunities to be great, then that filters through to the kids". According to Marzano, Waters, and McNulty (2001), the upskilling of teachers is fundamental to enriching student learning and is one of the key responsibilities of leaders in education. Cited in Cardno

(2012), Bush concurs, arguing that schools should be the “ultimate learning organisations, as that is their central purpose”(p. xi). However, he cautions that achieving this is not straightforward. One of the participants commented that the school motto “ready, willing and able to learn together” applied to educators in their school community as well as students. Another participant discussed how at their school, they had reviewed what was currently happening, looked at student results and decided that “whatever we were doing wasn’t enough for some of the kids”, resulting in the introduction of a new programme and investment into professional development. Hattie (2012) challenges educators to be aware, to know what is working and what is not, allowing this to inform change and guide teacher professional development.

School leaders choose the direction of professional development, key focus areas and how resources are allocated. Participant One stated that “schools are reflective of what the principal decides their priorities to be”. Having this mindset and understanding at the forefront of a school is important because it then shapes everything else. Caution is given by Tunmer et al. (2013) that it is not just about throwing more money or energy into professional development, citing in their 2013 report that over “\$200 million” (p.33) was spent per year on teacher professional development by the Ministry in New Zealand, but this did not result in a change in overall reading achievement. The report stated that a “fundamental change” (p.34) needs to be made to the way literacy is taught in New Zealand; it needs to be intentional and research driven. Participant Three discussed their school’s investment into the outworking of the science of reading professional development, citing approximately “\$40,000 last year, \$60,000 this year”. The school was in the second year of this being an area of focus and acknowledged that this was a big investment of both time and resources for the school, but they considered the outcomes were worth that investment.

In terms of dyslexia, what we understand about dyslexia informs our approach to the way we teach dyslexic students. The participants varied in their understanding of dyslexia, but for all of them, it was an area of interest and something they wanted to grow in and learn more about. The New Zealand Ministry of Education report published this year has arguably been published due to a lack of support for dyslexic thinkers in New Zealand schools (New Zealand Ministry of Education, 2020). Organisations such as the New Zealand Dyslexia

Association, Learning Matters, Liz Kane Literacy and the Facebook groups such as Dyslexia NZ Evidence-based Support Group are all calling for the government to do more for dyslexic students. Thaxton Berrett (2019) argues that a teacher's knowledge and understanding about dyslexia is a determinant of a dyslexic student's success. Conner (2015) takes it a step further and argues that student success is not just about teachers' knowledge but also about what teachers believe about students. If teachers believe their students can be successful, then their focus is on making them shine. This idea is reinforced by the study conducted by Leitão et al. (2017), who reported that dyslexic students who had positive school experiences attributed this to having supportive teachers who had a good understanding and knowledge about dyslexia. Unfortunately, this was not the experience of the majority of dyslexic students who participated in that study. New Zealand Deputy Secretary of Education, Katrina Casey acknowledges that "more work needs to be done to build teachers' capabilities to meet diverse learning needs" (Education Central, 2019), suggesting that further professional development is needed for teachers in this area.

### Theme three: The understanding that becoming a strength-focussed school is a journey, not a destination

A school focussed on student strengths has a glass-half-full outlook. It recognises that every student, regardless of ability or disability, has strengths that are worth celebrating and developing. Teachers acknowledge and work with students in their area of weakness, but do not allow this to become the central focus. Each of the schools interviewed as part of this research identified with being strength-focussed and acknowledged the value in recognising students' strengths. The degree of focus on strengths and the way this was displayed in each school setting varied between the schools.

The school culture shift to a strength-focussed outlook is important. K. Robinson (2011) proposes that if we do not acknowledge students' strengths in our education system, then there is the possibility that they may never fully discover or recognise these strengths for themselves. According to a report conducted by the Children's Commissioner (2018) on student emotional wellbeing highlighted that students want their strengths to be recognised and understood in the school context. When asked about the implications of having a

strength-focussed approach with dyslexic students, one participant said, “There is nothing more important than this. Because for these children, it is the disparity between their intelligence and their performance, in one little narrow area, that completely ruins their sense of self. We cannot be having that.”

The 2020 ‘About Dyslexia’ report calls for schools to recognise dyslexic students’ strengths (New Zealand Ministry of Education, 2020). To make this shift requires change. Waters et al. (2005) say that school leaders lead change through school culture that then infiltrates all aspect of the school community over time. Interestingly a New Zealand study of six schools that lifted their literacy achievement identified school culture as one of the main contributors to their success (The New Zealand Council for Educational Research 2019). Participant One identified their school culture as being strength-focussed but acknowledged that this was something that students initially struggled to embrace when they first started at the school, implying that to develop a strength-focussed school culture requires students to embrace it as well. Building a strength-focussed culture starts with a school philosophy and over time, students themselves start to believe and see that they have strengths. This participant used words like “shaping” and “building” this philosophy into students.

Nicholson and Dymock (2015) found in their own personal experience with dyslexic students that students often hear of the concept the ‘gift’ of dyslexia, and find this phrase somewhat frustrating as they struggle with the basics of reading and writing and don’t see this as a gift!

Changing school culture happens over time and requires investment from all stakeholders for it to be fully embedded. The California Teachers Association (2017) identified seven components that schools used to shift their culture to a strength-focussed culture: focusing on the future, understanding that it takes resilience to reach goals, acknowledging the importance of the parent and school partnership and that all the stakeholders in the school are responsible for student learning. Learning rather than teaching is the focus, encouraging students to be supportive of each other, and setting work for students that is relevant and purposeful. Throughout the four interviews, all of these components were discussed by at least one of the participants.

The process of becoming a strength-focussed school is a journey, not a destination. None of the participants interviewed indicated that they had arrived. Instead, they discussed the



conversations that were taking place in their school as a result of this journey. They talked about the value of the changes that they had made to date, the importance of not just students but staff also working in their areas of strength, and parent partnership as an important part of this journey to creating a culture of success for in their schools. K. Robinson (2011) says that “Transforming education in general is always about transforming individual schools” (p.262). It is not about creating cookie cutter schools; it is about schools finding and developing a culture that meets the unique needs of their community.

Developing a strength-focussed culture is about recognising that all students have strengths but, in this case, particularly dyslexic students whose weaknesses can often be the focus in schools. This requires both time and intentionality by the school leadership. Each school needs to go on its own journey to create such a culture that is reflective of both their community and their learners.

### Limitations of this study

Limited research has been conducted internationally about how school leaders’ perceptions around dyslexia inform their practice. There is also a lack of research on the implications of having a strength-focussed school culture and how this impacts dyslexic thinkers’ learning and wellbeing. During the course of the interviews, the lack of New Zealand research in these areas was highlighted by more than one of the participants calling for the need of more local study in these areas.

Qualitative research by its nature is based somewhat on interpretation, according to (Cohen et al., 2017), and the researcher acknowledges that this results in generalisations being made that are a reflection of their epistemology and judgement (Braun & Clarke, 2006). The small sample size and the limited research in this field provides caution in making generalisations for the wider population (Cohen et al., 2017).

Using one form of data collection is also problematic, and the responses obtained from the participants are heavily based on their ability to articulate their ideas (Cohen et al., 2017). Using a mixed method data collection method would have been beneficial for triangulating data (Merriam & Tisdell, 2016) or interviewing a different set of participants such as dyslexic adults to learn from them what was beneficial or detrimental during their time at school.

## Recommendations for future research

The publication of the LSAP 2019 – 2025 demonstrates that support for neuro-diverse learners is currently a focus area of the New Zealand Ministry of Education. The plan highlights that changes need to be made to how we identify and work with neuro-diverse learners in our schools, indicating that for most schools, a shift is required (Ministry of Education New Zealand, 2019). Additionally, the About Dyslexia plan published in 2020 reiterates the need for change. The publication of these two reports implies that there is further scope for research into how this can be practically implemented into New Zealand schools. The limited scope of a 60-point dissertation has meant that the researcher feels that they have only scratched the surface in this area. There is opportunity for further research that would delve deeper into principals' perceptions of dyslexia and their impact on school culture. Specifically, research into:

- How education leaders can shift from a balanced approach to literacy instruction to a structured, explicit approach.
- What are the challenges associated with shifting a school culture to strength-focussed?
- Hearing from dyslexic students in New Zealand- what works and does not work for them?
- Case study- what can we learn from principals who have made the shift to creating a dyslexia-friendly school culture?
- What professional development do New Zealand schools need to undertake to ensure that their teachers have a good understanding of what dyslexia is and how they can support dyslexic thinkers in their school?

## Conclusion

*“The single most important implication of research in dyslexia is not ensuring that we don’t derail the development of a future Leonardo or Edison; it is making sure that we do not miss the potential of any child. Not all children with dyslexia have extraordinary talents, but every one of them has a unique potential that all too often goes unrealized because we don’t know how to tap it” (Wolf & Stoodley, 2008, p. 209)*

It is well understood that principals are responsible for setting the culture and direction of a school. This paper explored the key aspects on how principals can shift to a strength-focused school culture for the purpose of empowering dyslexic students.

Firstly, dyslexia is complex, yet understanding it is vitally important. The role of education is to equip and prepare students for adulthood. To do this, we need to know students as individuals, believing that every person is unique and has distinctive abilities and strengths that should be identified and valued (K. Robinson, 2011). Early identification is essential in valuing students and vital in the general wellbeing of dyslexic thinkers. Waiting for students to fail before identifying them as dyslexic is detrimental to both their self-concept and self-esteem (Ozernov-Palchik & Gaab, 2016).

Secondly, professional development is a key aspect in developing a culture of success for dyslexic students. It is important that school leaders have a solid understanding of dyslexia and the science of teaching reading, as they are entrusted with the task of leading pedagogy and curriculum development in their schools (McNeil, 2019). Arming teachers with the tools to support dyslexic students so that they feel equipped to teach dyslexic students is essential.

Finally, becoming a strength-focused school is a journey in which the process should be reflective of the community of learners in which it caters for. West (2017) challenges education leaders, arguing that “the time has come to be serious about trying to understand the talents of dyslexics and other different thinkers. I propose that it is time to build a bold and ambitious program that will focus primarily on talent” (West, 2017, p. 191).

With the same sentiment, my hope is that this paper provides practical insights on how principals can make positive changes, along with a platform for further study, and that it will be another step in a journey where academics and practitioners can understand more about this important area of research.

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## Appendix A– Participant Information sheet

### Participant Information Sheet

Date Information Sheet Produced: 15 April 2020

### Project Title

**Re-thinking how educators view dyslexia. The role school leaders play in developing a culture of success for dyslexic students.**

Kia ora,

My name is Sarah Prestidge and I am currently working on my Master of Educational Leadership. The focus of my research is how education leaders in New Zealand Primary Schools can create a culture of success for dyslexic students. I would like to invite you to participate in this research by taking part in a one on one semi-structured interview with myself. I am interested in interviewing school principals that are deemed to be successful with dyslexic students, to gain an understanding of your approach and knowledge in this area.

### What is the purpose of this research?

This research seeks to recognise both the weaknesses and strengths associated with dyslexia, with the purpose of helping schools move to a strength-based culture, to empower dyslexic students in their learning. Insights into how this can best be achieved will be gained through participants like yourself, hearing from dyslexic adults and their school experience and what current research in dyslexia is reporting.

### How was I identified and why am I being invited to participate in this research?

Participants are being recruited based on their suitability, you have received this information sheet because you are regarded as someone who fits the inclusion criteria for my research.

The inclusion criteria for the proposed study includes: Principals deemed to be successful with dyslexic thinkers and or are recognised for doing something out of the ordinary for dyslexic students.

You have been either identified as a school that is known to be successful with dyslexic students by the researcher or you have been recommended to the researcher via a third party.

Since this is only a small research project, a limited number of participants are being recruited. This means that not all people who want to participate may be included.

### How do I agree to participate in this research?

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. Further, you are able to withdraw from the study at any time. If you wish to participate in this research please complete the attached consent form and either:

1. Sign the form and return a scanned copy or photo by email, or
2. Copy the body of the form into an email and confirm you consent to take part.

Email to: [jtr0974@autuni.ac.nz](mailto:jtr0974@autuni.ac.nz)

## What will happen in this research?

A time will be set up that is suitable for you, in a location to be determined, either in person or via an online video or audio meeting. Prior to the interview you will receive a copy of the general outline of the questions/topics to be discussed. The interview will be conducted in a semi-structured format and will be recorded for me to refer to at a later date.

## What are the discomforts and risks and how will they be alleviated?

If something distressing comes up during the interview process, then I will:

- Offer to turn off any recording

- Offer to give you time to process / calm down and or offer to make an alternative time for the interview.

- Offer to stop the interview entirely

While it is not anticipated that participants will experience any risk or discomfort during the interview process however if this is not the case then AUT counselling services are available to participants. Their services can be accessed by calling 09 921 9292.

## What are the benefits?

You will receive no direct benefits from participating in this research, but it may help improve the greater body of research conducted in dyslexia and benefit New Zealand Primary Schools and dyslexic learners in the future. This research is part of my dissertation and contributes to me completing a Master of Educational Leadership.

## How will my privacy be protected?

Your confidentiality will be preserved because you will not be identified in my final dissertation. You will be identified by a pseudonym.

## What are the costs of participating in this research?

The cost associated with participation is your time. You can expect that your involvement will take 45 - 60 minutes.

## What opportunity do I have to consider this invitation?

Please consider this request and if you are interested in participating please contact me within two weeks of receiving this information sheet. If I have not heard from you by then I will re-email you, if I still don't hear from you then I will assume that you do not wish to participate.

## Will I receive feedback on the results of this research?

If you would like to receive a summary of my findings, please indicate this on the consent form.

**Note: A transcript of the interview will be emailed to the participant for confirmation**

## What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr John Milne, [john.milne@aut.ac.nz](mailto:john.milne@aut.ac.nz), 09 921 999 ext 7953

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, Kate O'Connor, [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz), 921 9999 ext 6038.

## Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

### Researcher Contact Details:

Sarah Prestidge [jtr0974@autuni.ac.nz](mailto:jtr0974@autuni.ac.nz)

## Appendix B– Interview questions

**The following questions are the basic outline for an interview of a New Zealand Primary School Principal.**

**The interview will be conducted in a semi-structured format and will take between 45-60 minutes. The interview will be audio recorded.**

**As a principal in a New Zealand Primary School what do you understand your role to be?**

**Tell me about your school culture? Key aspects**

**What do you understand about dyslexia?**

**How would you define dyslexia?**

**How does your school culture / policies / practices recognise dyslexic students strengths?**

**What do you think are the implications of having a strength-based approach with dyslexic students?**

**General comments**

## Appendix C – Participant consent form



### Consent Form

**Project title:** Re-thinking how educators view dyslexia. The role school leaders play in developing a culture of success for dyslexic students.

**Project Supervisor:** *Dr John Milne*

**Researcher:** *Sarah Prestidge*

- I have read and understood the information provided about this research project in the Information Sheet dated dd mm yyyy.
- I have had an opportunity to ask questions and to have them answered.
- I understand that notes will be taken during the interviews and that they will also be recorded and the audio file transcribed. Video will not be kept once the audio has been extracted.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- I agree to take part in this research.
- I wish to receive a summary of the methodological findings (please tick one): Yes  No
- I wish to receive a copy of the interview transcript (please tick one): Yes  No

Please complete the attached consent form and either:

1. Sign the form and return a scanned copy or photo by email, or
2. Copy the body of the form into an email and confirm you consent to take part.

Email to: [jtr0974@autuni.ac.nz](mailto:jtr0974@autuni.ac.nz)

Participant's signature: .....

Participant's name: .....

Participant's Contact Details (if appropriate):

.....  
 .....  
 .....  
 .....

Date:

**Approved by the Auckland University of Technology Ethics Committee on 11 December 2019 AUTEK Reference number 19/426**

*Note: The Participant should retain a copy of this form.*