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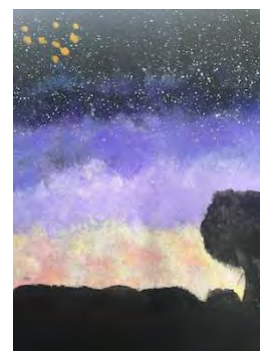
Structured literacy: An approach to support ākonga who present with dyslexic tendencies in Māori-medium education to learn to read, write and spell in te reo Māori

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ABSTRACT

Structured literacy is an evidence-based approach (Brady, 2011; Fletcher et al., 2007; Foorman et al., 2016; IDA, 2018; NRP, 2000; TKI 2020a) informed by the science of reading acquisition instruction and how the brain acquires and processes information (Reyna, 2004; Seidenberg, 2017). The literature examines how this approach could support bilingual tamariki (children) who may present with dyslexic tendencies in Māori-medium immersion contexts. Through an anonymous questionnaire to kaiako within kura kaupapa Māori (Māori-medium immersion schools) who teach or have taught tau 0-10 ākonga (years 1-10 students), participants shared what they know and understand about literacy, dyslexia and how this learning difference might reveal itself through te reo Māori (Maori language) and English. The findings highlighted the potential structured literacy has to benefit all ākonga in both languages and the need for te reo Māori resources and professional development on dyslexia and structured literacy.

KEYWORDS
Structured literacy, Māori-medium education, bilingual

A rationale for the inquiry

I am a Resource Teacher of Learning and Behaviour (RTLB). My role is guided by our cluster vision and mission; to support a sustainable way forward for our tamariki within the school environment in collaboration with kaiako (teachers), whānau (family) and other agencies as needed for ākonga from tau 0-10 who present with learning and/or behaviour difficulties (MoE, 2020a).

Anecdotal evidence indicates that there is a gap in the system supporting kaiako to recognise dyslexic tendencies, and teach ākonga who may present with these to learn to read, write and spell in te reo Māori. This issue has stemmed from conversations about dyslexia with our RTLB Cluster 16 kaimahi Māori team and my work in a wharekura, that highlighted a need to know and understand how this

learning difference may present itself through te reo Māori within kura kaupapa Māori. In our RTLB Cluster, we are noticing an increase in requests for ākonga with literacy difficulties in te reo Māori and in some cases older ākonga presenting with difficulties in both languages (te reo Māori and English).

Literature review

There appears to be an increasing number of tamariki presenting with learning differences within Māori-medium education and support and research seems limited in the area of what dyslexia may look like in kura kaupapa Māori. The RTLB service works in partnership with key stakeholders to find the most effective evidence-based approaches and practices to help our ākonga experience success and fulfil their learning potential (MoE, 2020a).

"Dyslexia can be said to be an unexpected and persistent challenge with acquiring and using written language. The word dyslexia comes from the Greek language and means difficulty with words" (ADA, 2018, para 1). Structured literacy is an umbrella term used by the International Dyslexia Association (IDA, 2016, 2018). It unifies all the evidence-based literacy elements and teaching principles based on culminating research available that gets the majority of ākonga reading, writing and spelling in the most effective way. It is a crucial approach for mokopuna with learning differences such as dyslexia (IDA 2016, 2018; Spear-Swerling, 2019; TKI, 2020a; Young, 2020).

The purpose of this review is to explore how a structured literacy approach could support tamariki who present with dyslexic tendencies in kura kaupapa Māori learn to read, write and spell in te reo Māori. In order to do that, te reo Māori and its journey to revitalisation will be explored, and the science of reading, bilingualism, and identifying dyslexia as a learning challenge will be expanded on.

Te reo Māori

Te reo Māori is encapsulated within the Treaty of Waitangi as a taonga (treasure – something that is unique) to Aotearoa New Zealand, and is an important way for ākonga to participate in te ao Māori and connect to their culture and identity. Te reo Māori became an officially recognised language of Aotearoa in 1987 and is the 'essence of culture' (Waitangi Tribunal, 2020). It imparts and vitalises "Māori traditions, history and knowledge" (Tocker, 2015, p. 24).

Te reo Māori is a transparent phonetic language (Harlow, 2001) with a consistent alphabetic orthography of 15 distinct sounds[1] or 20 sounds when considering the long vowel sounds separately from the short vowel sounds. The first attempts in mapping this oral language into a printed code began in the 1800s (Harlow, 2007).

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[1] Five vowels: a, e, i, o, u (the vowels have a longer sound when it has a macron on it or can be written as a double vowel: ā or aa); eight consonants: h, k, m, n, p, r, t, w; two digraphs (two letters that combine to form one sound): wh, ng.

It has regular and transparent spellings, which means it has a consistent phoneme to grapheme (sound to symbol) 1-1 match, which makes it an easier language to learn compared to phonologically opaque languages such as the irregular spelling of English (Krägeloh & Neha, 2010). This is because the sounds of the spoken language match the written code. For example, the sound /m/ in te reo Māori is written as m. It looks and sounds the same in all words. The vowels also have a consistent sound to symbol match within words (Harlow, 2007) and the majority of syllables have minimal cluster consonants (e.g. ng & wh) and end in a vowel (e.g. nga & whe) which is an advantage to mastering the Māori language written code. It has a less complex syllabic structure compared to English (Aro, 2006; Seymour et al., 2003).

Studies have found that reading proceeds more quickly in languages with orthographies with a written code that is transparent (Aro & Wimmer, 2003; Landerl, 2000; Paulesu et al., 2000; Seymour et al., 2003, cited in Krägeloh & Neha, 2010). This may explain why learning te reo Māori letter-sound relationships have been relatively easy to learn and generally mastered by ākonga (McDowall et al., 2005; Rau et al., 1998).

Māori-medium education

Māori-medium education began its journey to revive te reo Māori in the 1980s beginning with Kōhanga Reo language nests (Smith, 2017). It further evolved from a need for Te Kōhanga Reo graduates to have a place to go that continued to support the language and cultural revitalisation of te reo Māori (Smith, 2017; Tocker, 2015). The most effective approach to Māori-medium education is where instructional teaching is based on one language, te reo Māori at level 1 of delivery at 81-100%, however level 2 te reo Māori instruction 51-80% of the time also has shown to be effective[2] (May et al., 2006; McClunie, 2013).

Māori-medium kura are a diverse group which include kura kaupapa Māori, kura ā iwi, wharekura and total immersion classes. These kura draw upon philosophies that best align to their settings such as Te Aho Matua o Ngā Kura Kaupapa Māori, Te Marautanga o Aotearoa or their own cultural curriculum (MoE, 2013).

Māori-medium education creates an additive heritage bilingual environment where tamariki are adding a second language rather than replacing one language with another and where instruction in the indigenous language is central to learning (May & Hill, 2005). This approach is a highly successful form of education for ākonga bilingualism and academic success that aims to revitalise and maintain an indigenous language that develops fluent speakers, readers and writers (May et al., 2006; McClunie, 2013). A minimum of six, ideally eight years of quality Māori-medium education is needed to achieve positive literacy outcomes because most tamariki come from homes where their first language is English and te reo Māori is their second language. This means there is a delay in learning subjects in their second language (te reo Māori), however they do begin to catch up if they remain engaged (May et al., 2006). It usually takes one to two years to develop conversational fluency and six to eight years to acquire classroom-based academic language proficiency (Cummins, 2000a,

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[2] Māori-medium education is where students are taught all or some curriculum subjects in the Māori language for at least 51 percent of the time (Māori Language Immersion Levels 1-2) (Education Counts, 2020).

2000b; May, 2002; May et al., 2004). This is why the focus of Māori-medium education is revitalising te reo Māori through programmes that improve these language skills. This means ākonga need to be 'taught Māori' as well as 'taught in Māori' (May et al., 2006).

May et al. (2006) state that strengthening te reo Māori by learning to read and write in the spoken language, strengthens the opportunity to successfully learn another language (e.g. English). However, research also shows, for example, that if ākonga lack good basic te reo Māori literacy skills, then this will cause them to struggle with learning the Māori language and learning in general, leading to difficulties with learning another language (e.g. English). This means they need sufficient time to first master te reo Māori (May et al., 2006).

Māori-medium education achievements and challenges

Research and academic literature show that there has been evidence of success within kura kaupapa Māori in terms of self-esteem, confidence, cultural identity, provision of a culturally safe and sensitive environment, cooperative learning, and iwi and whānau engagement (Bishop et al., 2002; ERO, 2000, 2002; Hohepa et al., 1992; Hollings et al.,1992; Jacques, 1991; Keegan, 1996; Macfarlane et al., 2007). Furthermore, some specifically developed te reo Māori tools such as Ngā Kete Kōrero (a collection of reading books in te reo Māori for ākonga in kura kaupapa Māori that increase in levels of difficulty and are comparable to those in English-medium schools) and He Mātai Mātātupu (observation assessment used to identify literacy learning needs at 6 years of age) were highly valued but were not widely available and accessible for kura and teachers within Māori-medium (Rau, 2005). Hill (2010) compared the quantity of Māori language instruction with similar programmes in international contexts and found that the quantity of Māori language instruction remains very high in Aotearoa New Zealand.

Some research highlighted challenges such as a dominance of instruction in English, few effective support services, a lack of promotion of te reo Māori because of the limited levels of fluency of Māori language, and no or limited measures to assess the Māori language (Jacques, 1991; Keegan, 1996). Bilingual teaching, learning practices and language achievement were not addressed in the 1993 Ministry of Women's Affairs Report and were not clearly addressed in the 2000 and 2002 ERO reports (Carkeek et al., 1994; ERO, 2000, 2002). There was a lack of appropriate Māori resources for teaching and unclear specific learning approaches and language assessments (ERO, 2000, 2002; Hollings et al., 1992; Jacques, 1991; Keegan, 1996). Hill (2020) also found that schools who teach with and through level 2 te reo Māori (51-80%) need support in increasing teachers' knowledge of the theory and practice of bilingual education, including opportunities to improve their fluency of te reo Māori.

Māori-medium literacy pedagogy

Hill (2020) states that, within Māori-medium education, there is very limited research regarding literacy pedagogical practices. However, some studies on early literacy practices and te reo Māori language development indicate that language assessments and resources designed to match ākonga language ability and linguistic proficiency upon entry to kura can support their oral language performance (Berryman et al., 2002). An improvement in teacher literacy knowledge, reading

resources[3] and practice resulted in an improvement of literacy outcomes for tamariki (McNaughton et al., 2006; Rau, 2005). Yet there is still a need to develop professional and research knowledge in areas of early literacy teaching and learning in te reo Māori, assessment, and the relationships between reading, writing and oral language (McNaughton et al., 2006).

Effective literacy learning occurs within a culturally appropriate and responsive context (Bishop et al., 2001). This includes catering to the learning differences that tamariki may present with, by supporting them to stand tall as Māori, participate to their full capacity (Durie, 2001), acknowledge their unique needs, and adapt approaches to meet these needs (Bishop et al., 2013). A culturally inclusive framework such as universal design for learning (UDL) enables equity of access to education and evidence-based learning opportunities for diverse ākonga. It is based on the vision of equity and findings from educational research and neuroscience (MoE, 2021; TKI, 2020b). High quality language teaching for a sustained amount of time makes the most difference for learner outcomes and there is a need for further robust research on effective practices so that Māori language in education thrives (MoE, 2013).

Science of reading

The science of reading creates an effective pathway for learners. It is a convergence of over 40 years of research from linguists, psychologists (development and neurocognitive) and education intervention researchers from around the world, who revealed interdisciplinary insights into how we learn to read and what kind of instruction works best for most ākonga (Moats, 2019; Seidenberg, 2017).

Structured literacy is informed by the science of reading. It identifies key elements of what we need to learn to read, write and spell: phonological/phonemic awareness (phonology – speech sounds of language); alphabetic-code/phonics (orthography – sound to symbol and syllable types), including spelling and writing (e.g. handwriting); fluency; vocabulary (morphology); comprehension (syntax and semantics) (IDA, 2016, 2018; NRP, 2000; Stewart, 2019; TKI 2020a); oral language (listening and speaking); and written expression[4] (Stewart, 2019). It also identifies how to teach these elements through instructional principles that are diagnostic, explicit, systematic and cumulative (IDA 2016, 2018; Stewart, 2019; TKI, 2020a). It follows a structured simple to complex logical progression known as a scope (what to teach) and sequence (the order to teach it in), uses a multimodal approach and includes monitoring and ongoing review to learning the written code of the language one speaks (Chapman et al., 2018; IDA, 2016, 2018, 2020; MoE, 2020b; NRP, 2000, Stewart, 2019; TKI, 2020a).

Practitioner knowledge and understanding of effective reading instruction is paramount because "human beings were never born to read" (Wolf, 2018, p. 2). Furthermore Dehaene (2009, cited in Stewart, 2019, p. 3), a cognitive neuroscientist, states that "It simply is not true that there are

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[3] E.g. Ngā Kete Kōrero – junior reading resources (https://kauwhatareo.govt.nz/en/collections/nga-kete-korero/).

[4] Or composition.

hundreds of ways to learn to read. ... When it comes to reading, all [children] have roughly the same brain that imposes the same constraints and the same learning sequence".

Dyslexia

According to the International Dyslexia Association (IDA) (2002, para. 1):

> Dyslexia is a specific learning difference 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.

Kilpatrick (2020) states that the nature of dyslexia is not a visual problem. It is the most common reading learning difference that affects the phonological[5] component of language (IDA, 2002) in areas of phonological working memory and blending, phoneme awareness, phonic decoding and rapid automatised naming. These difficulties could be in one or more areas. Usually people with dyslexia have no problem understanding spoken language. However they do have difficulties with accurately and fluently decoding written words, which affects their ability to comprehend and make sense of the written text in a meaningful way (IDA, 2002; Kilpatrick, 2020).

Dyslexia[6] is "simply defined as poor word-level reading skills despite adequate effort, learning opportunities, and normal language skills" (Kilpatrick, 2020, p. 9). These can be found in a variety of writing systems and languages (Caravolas et al., 2013; Carrillo et al., 2012; Castles, 2006; Goswami et al., 2010; Serrano & Defior, 2008) and differs for each person dependent on the "severity of the condition and the effectiveness of instruction or remediation" (IDA, 2017, para. 6).

In Aotearoa, the Ministry of Education officially recognised dyslexia in 2007[7] and during 2020 produced a dyslexia kete with information to support students in English-medium schools. This includes an introductory resource, Tīpaopao (dyslexia) kete, to support ākonga with dyslexia in Māori-medium kura (MoE, 2020b). It is unclear if this resource is being used or how effective it is for kaiako, tamariki and their whānau.

Dyslexia is a life-long neurobiological learning difference that "affects an estimated one in ten New Zealanders, including 70,000 schoolchildren" (Dyslexia Foundation of New Zealand, n.d., para. 1). However, there appears to be no specific statistics referring to bilingual dyslexic learners in Māori-medium education.

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[5] Refers to the sounds of spoken language (Kilpatrick, 2020).

[6] A Greek word meaning dys (difficulty) and lexia (words) = difficulty with words.

[7] Signs of dyslexia, known as word blindness, can be traced back to an early finding recorded in the British Medical Journal Nov 7th, 1896, by a Dr W. Pringle Morgan (Shaywitz, 2003).

Recognising dyslexic tendencies

Identifying reading difficulties early, followed by specific and intensive interventions, need to be acted on along with ongoing support to prevent low self-esteem and achievement (Hanks, 2011, cited in MoE, 2020b). The key is to know how to recognise these difficulties throughout different developmental stages of one's life from preschool through to adulthood: delayed speech, difficulties with expressive language, rhyme, phonological awareness, writing letters, spelling, slow reading and writing (Rose, 2009).

Furthermore, the simple view of reading (Farrell et al., 2019; Gough & Tumner, 1986; Rose, 2015; Wooldridge, 2017) is a model that kaiako could use to recognise ākonga literacy needs. It shows that reading comprehension is the combination of decoding and language comprehension. In order to understand what you read you need to be able to process words[8] and understand the language you hear (oral language comprehension). This means we need both in order to have the ability to understand what we read. The brain mechanisms for reading are the same around the world and good predictors of learning to read include phonics[9] (decoding) and vocabulary (language comprehension) in all languages (Dehaene, 2013).

According to Snowling (2013), there are a range of valid literacy acquisition assessments that can be used to plan for instruction but can't diagnose dyslexia. Instead, it helps to identify ākonga strengths to build on, areas that need further investigation and/or explicit instruction. Consideration also needs to be taken when using literacy assessments for bilingual learners. They need to be culture-fair (Peer & Reid, 2000, cited in MoE, 2020b), for instance in te reo Māori for te reo Māori.

Bilingual learners

There is no denying that learning to read a language that has a similar or different orthography will be time-consuming and difficult for tamariki with dyslexia (Ho et al., 2005). However, there is accumulating evidence suggesting that bilingual dyslexic learners of two alphabetic languages could strengthen the part of their brain that processes sounds to print (Paulesu et al., 2000) by learning a phonetic transparent orthography (e.g. te reo Māori). This improves their phonetic reading skills in their opaque orthography (e.g. English). These skills have shown to be better compared to their monolingual English peers revealing bilingual exposure has a positive impact on ākonga phonological reading skills (Siegel, 2016).

Bilingual dyslexics can, and eventually do, form language-specific literacy skills in both of their languages (Klein & Doctor, 2003). Struggling readers educated in a second language can benefit from the same kinds of support (e.g. structured literacy) used to help ākonga who are struggling monolingual readers. It is important to include suitable adaptations as needed, such as "lots of scaffolding, support for vocabulary development, and use culturally familiar materials at an appropriate linguistic level" (Grosjean, 2019, para. 19). Furthermore, in certain circumstances early

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[8] This is the main area of difficulty for people with dyslexia (IMSLE, 2017).

[9] Also known as the alphabetic principle/code.

literacy intervention is beneficial for bilingual dyslexics and can be in one of their languages, even if they have not yet achieved full spoken language proficiency in that language (Geva et al., 2000).

With appropriate instruction, most tamariki can experience success, however one needs to keep in mind that bilingual dyslexic ākonga face an additional challenge, with learning the necessary knowledge and skills that are not in their native language (MoE, 2020b). This is why it is important that when ākonga transition into learning English, they need to first learn the differences between Māori and English languages (e.g. sounds and symbols) (Hill, 2010).

Bilingual dyslexics

Genesee (2019, cited in Grosjean, 2019), a leading expert on the topic of dyslexia in bilinguals, says dyslexic second language learners have the same difficulties as dyslexics who speak one language. It can occur across languages, cultures, socioeconomic status, race and gender (BPS, 1999; Reid & Peer, 2016) and will influence a child's ability to read in any language. Lack of familiarity with the cultural or social context of the text, grammatical competence and limited vocabulary can be an added challenge encountered for second language learners. The magnitude of the learning difference may be more evident in their weaker language. Furthermore, bilingual tamariki who have a reading problem in only one of their languages do not have dyslexia. This difficulty with reading in one language could be due to other factors such as motivation, learning environment, boredom, quality of instruction, vision impairments and health (Genesse, 2019, cited in Grosjean, 2019).

Studies have found that bilingual tamariki with dyslexia show similar phonological linguistic difficulties in both of their alphabetic orthographic languages (Ijalba & Bustos, 2017; Klein & Doctor, 2003) that impedes their ability to read and write (Geva et al., 2000). The research suggests that the brain development and weaknesses in people with dyslexia are similar no matter what language they speak. However the challenges may not look the same in each language.

Transparent languages (te reo Māori) are easier to learn than opaque languages (English) and a difficulty that ākonga with dyslexia may have in their transparent orthography may appear a little different at first compared to opaque languages. Numerous studies (Barca et al., 2006; Bergmann & Wimmer, 2008; Carrillo et al., 2011; Davies et al., 2007; Douklias et al., 2009; Jimenez et al., 2009; Torppa et al., 2013) show that difficulties in the speed of reading rather than the accuracy of reading is the problem area that first appears in dyslexic readers of transparent orthographies (e.g. Spanish). This means that readers can decode sounds accurately but at a pace that is slower compared to typical readers who develop normally (Serrano & Defior, 2008). Rau et al. (2020) noticed ākonga are usually able to accurately decode, but displayed difficulties with slow and laborious reading of texts in te reo Māori, often with the syllabification of words (blending and fluency). These studies align with the findings of Wolf and Stoodley (2007), that some dyslexic tamariki can have perfectly represented phonemes, but cannot quickly connect with letters because of a processing speed[10] problem.

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[10] Or rapid automatic naming problem. Fluency means getting the reading circuits to work together quickly (Wolf & Stoodley, 2007).

Literacy approaches

Research has indicated that structured literacy is the best approach for dyslexic learners to learn to read, spell and write because it "directly addresses their core weaknesses in phonological skills, decoding, and spelling" (Moats, 2017, cited in Spear-Swerling, 2019, p. 203). Studies have found that ākonga receiving instruction using this approach outperformed their peers (Chapman et al., 2018; Robinson et al., 2016) because it offers more effective and highly explicit ways to teach them (dyslexic or at risk) within classroom literacy instruction when compared to typical literacy instructional practices (Spear-Swerling, 2019). In fact if you take a step back in time, Center and Freeman (1996) suggested implementing a structured literacy approach class-wide (tier 1) can produce similar results to costly 1-1 interventions for all ākonga.

In Aotearoa, structured literacy is emerging in schools showing positive effects for both te reo Māori and English (Lifting Literacy Aotearoa, 2020, 2021). However, it seems this is only one school's perspective of their experience using the structured literacy approach in te reo Māori. It would be interesting to find out if this approach for te reo Māori is emerging in other schools, including full immersion kura Māori, and if so what that may look like.

Another approach that is commonly used in English-medium settings and in some respects are similar in Māori-medium kura (Bishop et al., 2001; Rau, 1998) is the whole language (meaning focus) and balanced literacy approach (meaning focus with some phonics). Core instruction is focused on guided/shared reading where ākonga are encouraged to use word analogies, context and pictures to guess words. Although some form of phonics, decoding and spelling may be taught in word work lessons, the skills typically are rarely taught systematically (Spear-Swerling, 2019). This approach does not help to develop successful readers and isn't effective for students who are dyslexic because it doesn't focus on the skills needed to process (IDA, 2018) and orthographically map words (Kilpatrick, 2020). "Cultural, economic, and educational circumstances obviously affect children's progress, but what they need to learn does not change" (Seidenberg, 2017, p. 101).

Summary

This review has looked at how a structured literacy approach can support ākonga who are dyslexic, including bilingual dyslexics. There is a wealth of knowledge, research and scientific evidence of structured literacy being an approach that benefits ākonga who are dyslexic or at risk with literacy within English-medium education. However, there appears to be no specific research on whether this approach could benefit ākonga within Māori-medium contexts. It is timely to find out what kaiako in Māori-medium education think, know and understand about dyslexia and literacy, and what that may look like for them and their tamariki.

Inquiry question

There were two main inquiry questions:

1. In my role as an RTLB, how can I support kaiako in Māori-medium immersion kura to recognise dyslexic tendencies and teach ākonga who present with these learn to read, write and spell in te reo Māori?
2. In what ways do kaiako notice these difficulties when ākonga begin to formally learn to read, write and spell in English?

In order to know how to support, I first needed to find out what kaiako currently know, have experienced, use and understand about literacy learning, structured literacy, language difficulties and dyslexia, and what type of support they want and need.

Methodology

A mixed methods framework using a convergent parallel design was used (see Figure 1 below). This design uses "concurrent timing to implement the qualitative and quantitative during the same phase of the research process, prioritises the methods equally and keeps the strands independent during analysis, and then mixes the results during the overall interpretation" (Creswell & Plano Clark, 2011, p. 70).

The convergent parallel design
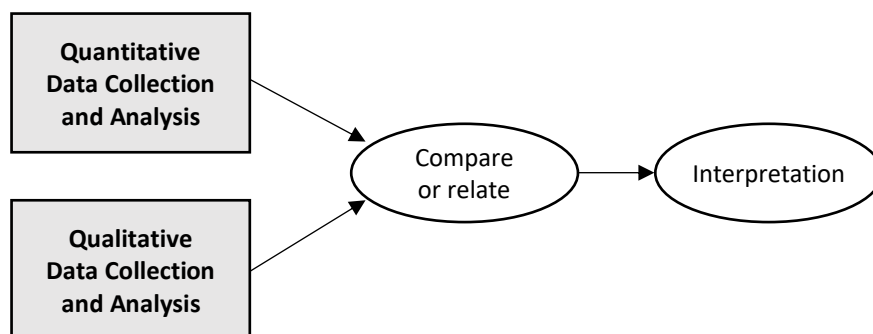
Figure 1. The convergent parallel design

This was a small-scale research study and data was collected using an online anonymous Google Forms questionnaire to gather a mix of quantitative and qualitative data. This questionnaire was written in te reo Māori and English and participants were invited to respond in either language. A colleague proficient in te reo Māori translated questions into te reo Māori and also translated some answers into English. Seven kaiako responded in te reo Māori (literacy assessments) and the rest of the open questions were answered mostly in English with a few scattered answers in te reo Māori or a mix of both te reo Māori and English.

I chose to use a questionnaire to canvas the field broadly using a mix of dichotomous (closed), comment box open-ended, demographic, matrix table and multichoice questions. I sought to find common threads across different contents from various kaiako through their thoughts, knowledge, experiences and teaching approaches, including their understanding of dyslexia, how this learning difference may present itself in kura Māori and what kind of support they might need. The information was automatically summarised by Google Forms, making it a simpler process in analysing the data and yielded some key information within a short time frame (Menter et al., 2011).

Inquiry participants and context

The context of my research was Māori-medium (tau 0-10) with approximately 100-430 ākonga who attend these kura based in the Waikato region. To support the process of whakawhanaungatanga[11] (points of engagement), colleagues within our Māori-medium kaimahi team made contact with a key person from their kura. They were able to share the purpose of the questionnaire and ask if they were open to receiving further information to support their decision in sharing it with kaiako. They then shared the key person's email with me and I sent introduction emails with a link to my questionnaire to 15 kura. The questionnaire was available for three weeks and during this time I received 19 responses from a range of kura contexts (see Figure 2 below) – kura kaupapa Māori: full immersion kura (42.1%, n=8), kura ā iwi: immersion kura with their own tribal curriculum (31.6%, n= 5), and ruma-rūmaki: Māori immersion classrooms within mainstream kura (26.3%, n=6).
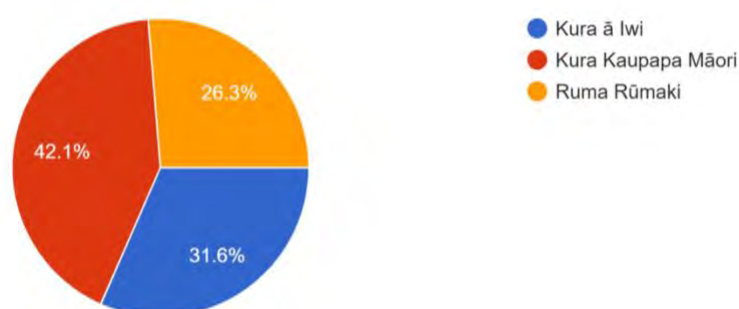

Figure 2. Kaiako responses from a range of kura Māori contexts

The quantitative data was automatically analysed using descriptive statistics (e.g. frequency counts and percentages). The qualitative data was thematically organised within each question and this was reviewed looking for key words and phrases that were present in the literature review (Menter et al., 2011), then extrapolating further themes and concepts that were both expressed explicitly and implied (Busch et al., 2012). Findings were mixed during the "overall interpretation" phase (Creswell & Plano Clark, 2011, p. 70).

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[11] The process of making connections and relating in culturally appropriate ways (e.g. points of engagement).

Findings and discussion

The analysis of the data identified the following themes:

- Kaiako discussed Māori-medium literacy, which covered assessments, literacy approach and instruction, literacy difficulties encountered, and how kaiako tried to help their ākonga. This included thoughts from kaiako on English, as formal English learning begins in Māori-medium contexts between years 4-9.
- Kaiako shared the language difficulties they had noticed during their entire teaching career, including their knowledge and understanding of dyslexia and structured literacy, and what professional learning they would like.

These themes and concepts are discussed in detail below and exemplified by the shared experiences of kaiako. The findings and discussion include statistical data and direct quotes from kaiako.

Māori-medium literacy

Literacy instruction (see Figure 3 below) was mainly in te reo Māori (72.2%, n=13). For some kaiako literacy instruction was in both te reo Māori and English (27.8%, n=5).
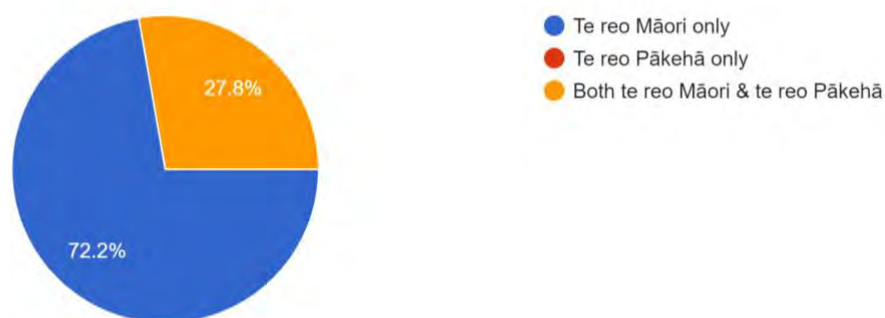

Figure 3. Frequency of language used during literacy instruction

Literacy assessments

A wide range of assessments were being used in the participants' kura, predominantly administered in te reo Māori. Some were founded in overall teacher judgements (OTJs) based on observations of ākonga work. The main formalised literacy assessments kaiako used were running records, oral language assessments, writing assessment (manu tuhituhi), 10x10 writing sample, 6 year net (mātai mātātupu), and haurapa probe (reading comprehension assessments). However, there was no specific mention of how kaiako assess the early foundational reading skills (phonological/phonemic awareness – hearing sounds away from print) and fluency, which are key elements of reading success (MoE, 2020b; NRP, 2000; Rose, 2009).

Literacy approach and instruction

The dominant literacy approach from kaiako was whole language (meaning focus) using shared and guided reading, poems, visuals, pictures, early words (whole word look and say), and short comprehension tasks that include relevant, engaging, high quality literacy experiences. There was some mention of phonics (balanced literacy) sounds, blends, handwriting and spelling all done in a multisensory way. Other essential literacy components (Stewart, 2019) mentioned were oral language using correct Māori structures and sayings and writing with a focus on a range of writing tasks (unstructured, structured and genre-based).

The responses highlighted a heavy focus on Gough and Tumners' (1986) language comprehension[12] side of the simple view of reading theory. According to the simple view of reading, in order for ākonga to comprehend what they read they also need to learn how to decode words, to get print off the page (Stewart, 2019) accurately and fluently (Wolf & Stoodley, 2007). Further to this the whole language approach does not help to develop successful readers and isn't effective for students who are dyslexic because it doesn't focus on the skills needed to process (IDA, 2018) and orthographically map words (Kilpatrick, 2020).

Kaiako saw literacy instruction as a mix of daily acts of teaching (clear explicit guided instruction), teacher modelling, feedback, feedforward, conferencing (individuals, group or whole class), and teaching te reo Māori through a scaffolded approach where links were made to speaking, reading and writing. It was based on the child's literacy needs, experiences and values, set structure and goals, revision and repetition to reinforce new language. Although literacy instruction implies some key instructional principles, there appears to be an unclear systematic (IDA, 2018; IMSLE, 2017; MoE, 2020b; NRP, 2000) approach to learning the Māori language.

Literacy difficulties

Over the course of their teaching careers, kaiako had noticed the following literacy difficulties:

- Ākonga frustrated with reading (words look different everyday),
- Laboured writing in both te reo Māori and English,
- Challenges with recognising and comprehending te reo Māori sounds and matching them to print – they guess,
- Transferring their oral language ideas onto paper,
- Difficulties with spelling and writing clearly,
- Reluctant writers and readers,
- Often very large handwriting including mixing up capitals and lower-case letters.

This highlights what the research says about bilingual children with dyslexia. They show similar phonological linguistic difficulties in both of their alphabetic orthographic languages (Ijalba & Bustos, 2017; Klein & Doctor, 2003) that impedes their ability to read and write (Geva et al., 2000). This is

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[12] Wide vocabulary linked to the learner's world, making connections, understanding language, inferencing, summarising, imaging, read to and dictionary skills.

because the number one difficulty in the dyslexic brain is an awareness of sounds and mapping those sounds to letters and words (Wolf & Stoodley, 2007).

According to some kaiako, these difficulties affected ākonga attendance and their self-esteem as they were aware of their learning compared to their peers, and therefore hated school. This is why reading difficulties need to be identified early, followed by specific and intensive interventions along with ongoing support to prevent low self-esteem and achievement (Hanks, 2011, cited in MoE, 2020b).

How kaiako tried to meet the literacy learning needs of their ākonga

Most kaiako tried to help by using a range of approaches such as teacher aides, assistive technology, reading mileage, discussions, reader writer, blue overlay, and repetition, and reinforced learning through a range of activities, games and strategies. They would break down language and word association to images/ideas, letter of the week, rhyming and spelling list words. One kaiako tried small group explicit teaching, reading simple texts containing the letter focus, letter-sound relationships and CVC words (English). Some said they aligned reading to topics of interest, and used teaching supports[13] and writing books with bigger lines.

Kaiako 2 had "no understanding of how to teach reading and writing in English (e.g. rules) and wondered what is applicable or similar in te reo Māori". Kaiako 7 mentioned that they "are really just blindly trying to help".

Other factors that the kaiako used to try and help their ākonga were:

- Careful consideration of seating,
- Well-established routines, rotations including encouraging, co-operative, interactive, visual, and social learning experiences in mixed ability groups,
- Time and space to learn in a positive environment,
- Self-belief and rewards,
- A quiet area for reading practice,
- Word saturation in the immediate learning environment.

For some, at-risk kids were seen daily. Kaiako monitored and tracked specific group work, followed up, checked in with ākonga, and had them work in groups or pairs (tuakana/teina).

Analysis of data indicated a notable absence of an intentional, explicit systematic cumulative approach to helping ākonga learn te reo Māori. Some strategies currently being used (e.g. word saturation, blue overlay) are not injurious but they won't teach ākonga to read because learning to read is a skill that needs to be explicitly taught (IDA, 2018; IMSLE, 2017; MoE, 2020b; NRP, 2000). Simply immersing someone in print will not achieve this (Stewart, 2019).

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[13] E.g. Siri for English word spelling and Māori kupu in a dictionary.

Kaiako knowledge of language difficulties

Most kaiako (63.2%, n=12) had taught ākonga who had difficulties with learning both te reo Māori and English. Some kaiako (23.6%, n=5) had also noticed ākonga who had difficulties with learning to read, write and spell in te reo Māori only, and one in English only. One kaiako had not noticed any language difficulties in either language (see Figure 4 below).

Figure 4. Frequency of difficulties learning to read, write and spell in te reo Māori and English

Table 1 (see below) shows a breakdown of the language developmental difficulties (Rose, 2009) kaiako had specifically noticed during their entire teaching career within students they had taught or teach, when compared to their same aged peers in either te reo Māori or te reo Pākehā.

Table 1. Language developmental difficulties noticed by kaiako

Language developmental difficulties	Te reo Māori	Te reo Pākehā	Unnoticed difficulty
Delayed or problematic speech	78.9%, n=15	47.3%, n=9	15.7%, n=3
Difficulties with expressive language	78.9%, n=15	52.6%, n=10	10.5%, n=2
Difficulties with rhyming skills	52.6%, n=10	36.8%, n=7	26.3%, n=5
Difficulties with phonological awareness (blend, segment, delete syllables away from print)	73.6%, n=14	57.8%, n=11	10.5%, n=2
Little interest in writing/difficulties writing letters	84.2%, n=16	52.6%, n=10	5.2%, n=1
Limited letter sound knowledge (e.g. initial letter sound, identify another word that starts with the same sound)	68.4%, n=13	42.1%, n=8	15.7%, n=3
Limited phonemic awareness (blend, segment and manipulate individual sounds away from print)	73.6%, n=14	52.6%, n=10	5.2%, n=1
Limited word attack skills (do they have the skills to make sense of printed words)	68.4%, n=13	52.6%, n=10	10.5%, n=2
Difficulties with spelling (writes random squiggles, erratic and unusual spelling)	73.6%, n=14	52.6%, n=10	
Slow reading	89.4%, n=17	52.6%, n=10	
Limited decoding skills when faced with new words	68.4%, n=13	47.3%, n=9	10.5%, n=2
Limited phonetic spelling (difficulties with accurately matching sound to symbol when spelling)	73.6%, n=14	47.3%, n=9	5.2%, n=1
Limited phonetic and non-phonetic spelling (regular spellings in te reo Māori and both regular and irregular spellings in te reo Pākehā)	63.1%, n=12	47.3%, n=9	15.7%, n=3
Slow speed of writing	89.4%, n=17	47.3%, n=9	

Table 2 (see below) shows a breakdown of the unexpected and persistent difficulties kaiako had specifically noticed during their teaching career within students they had taught or teach, when compared to their same aged peers, when they were reading, writing and spelling in te reo Māori or te reo Pākehā.

Table 2. Literacy difficulties noticed by kaiako

Unexpected and persistent difficulties	Te reo Māori	Te reo Pākehā	Unnoticed difficulty
Accurately matching 1-1 letter sound with letter symbols when reading them	73.6%, n=14	42.1%, n=8	10.5%, n=2
Accurately matching 1-1 letter symbols with letter sounds when writing them	68.4%, n=13	42.1%, n=8	15.7%, n=3
Confusions with vowel sounds (reading and writing them)	73.6%, n=14	42.1%, n=8	10.5%, n=2
Slow at reading words	89.4%, n=17	78.9%, n=15	
Slow at writing words	89.4%, n=17	78.9%, n=15	
Reading (decoding) words are inaccurate	84.2%, n=16	78.9%, n=15	
Writing (encoding) words are inaccurate	89.4%, n=17	78.9%, n=15	
Written expression is well below oral expression and understanding	89.4%, n=17	52.6%, n=10	

The main difficulty kaiako (89%, n=17) had noticed when students were reading in te reo Māori was reading fluency[14] and decoding sounds in words accurately in English (47.3%, n=9). Some kaiako (68%, n=13) had noticed decoding difficulties in te reo Māori and 37% (n=7) had noticed difficulties in reading fluency in English (see Figure 5 below).
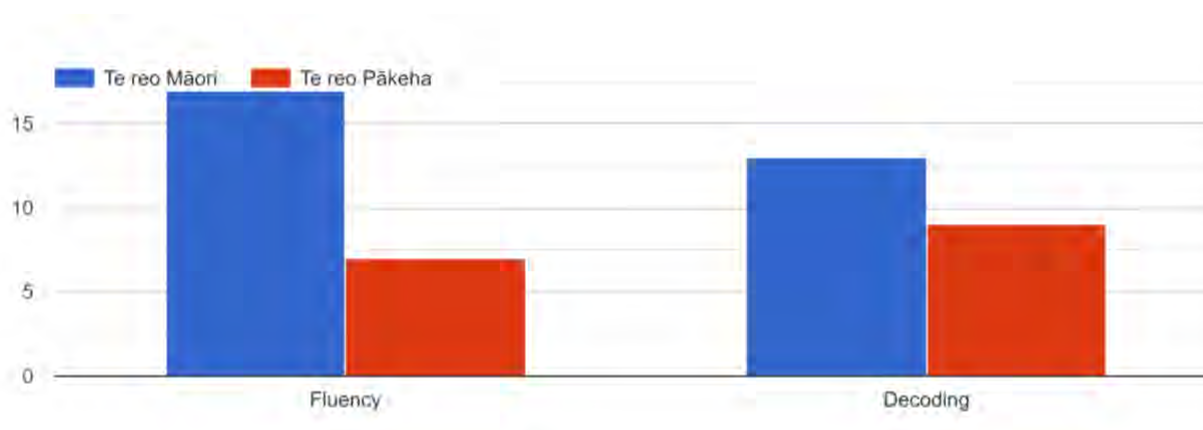

Figure 5. Fluency and decoding difficulties noticed by kaiako in te reo Māori and te reo Pākehā

Participants noticed all identified language development difficulties[15] (Rose, 2009) in both te reo Māori and English (Table 1). The main areas of difficulties noticed were writing letters (84.2%, n=16),

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[14] Reading is slow and laborious.

[15] Delayed speech, difficulties with expressive language, rhyming, phonological awareness, writing letters, spelling, slow reading and writing.

spelling, phonological and phonemic awareness (73.6%, n=14), slow reading and writing (89.4%, n=17) in te reo Māori (see Figure 6 below). The least noticed difficulty was a rhyming skill in te reo Māori (52.6%, n=10) and English (36.8.%, n=7), while 26.3% (n=5) did not notice this difficulty.

This implies a gap in early foundational reading skills, explicit teaching of connecting the sounds to print (alphabetic code) and fluency – all of which are crucial for reading success (IDA, 2018; IMSLE, 2017; MoE, 2020b; NRP, 2000).
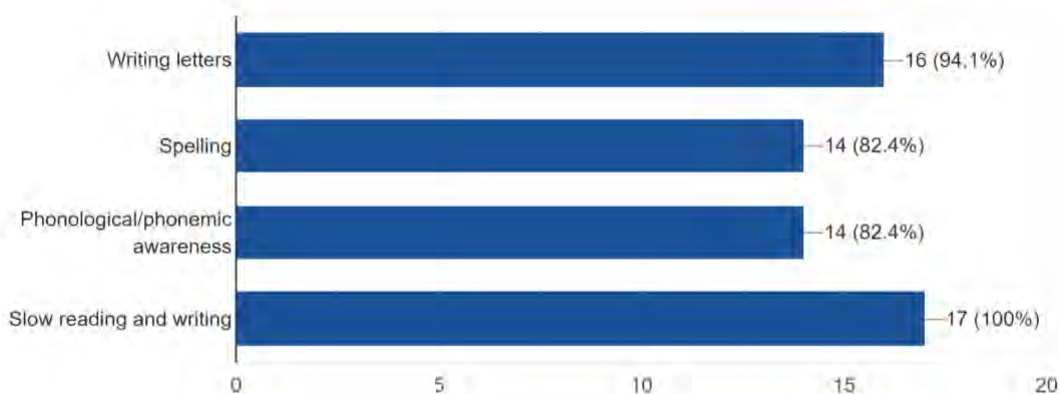
Figure 6. Main language development difficulties noticed by kaiako in te reo Māori

Over half (52.6%, n=10) of the kaiako had taught bright and creative ākonga who they felt puzzled by because they presented with an unexpected and persistent difficulty with reading, writing and spelling in te reo Māori. Some kaiako (36.8%, n=7) had experienced these same difficulties in English. Furthermore, 84.2% (n=16) of kaiako had experienced teaching ākonga who read well below their expected age when compared to their same aged peers in te reo Māori, and 57.8% (n=11) in English. However ākonga could understand age-appropriate texts in both languages when they were read to them and discussed (see Figure 7 below).
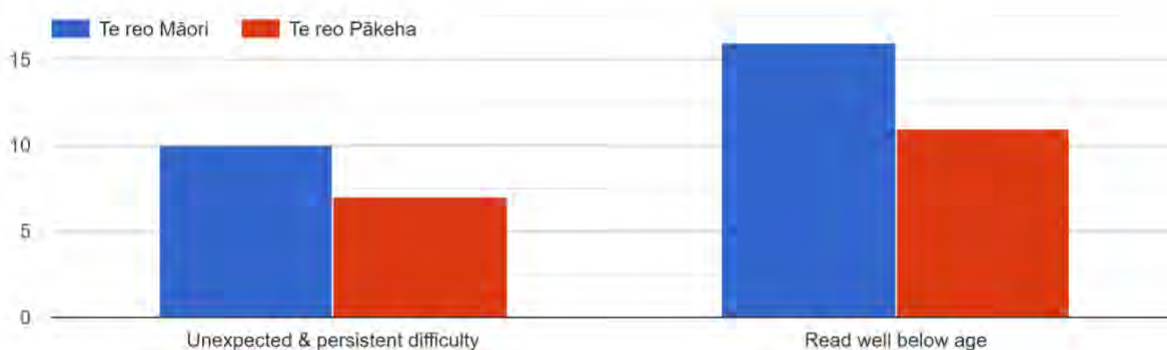

Figure 7. Unexpected and persistent difficulties noticed by kaiako including ākonga reading well below their age when compared to same aged peers in te reo Māori and te reo Pākehā

Most kaiako noticed reading fluency (te reo Māori) and developmental language difficulties (Rose, 2009) of ākonga they had taught in both languages, in particular with slow, inaccurate reading, spelling and writing, and where oral expression and understanding was well above written expression (Table 2).

This aligns with what the research says about how the speed of reading is the problem area that first appears in dyslexic readers of transparent orthographies – in this case te reo Māori (Barca et al., 2006; Bergmann & Wimmer, 2008; Carrillo et al., 2011; Davies et al., 2007; Douklias et al., 2009; Jimenez et al., 2009; Torppa et al., 2013). Rau et al. (2020) have also noticed slow and laborious reading behaviours of texts in te reo Māori. Difficulties with accurately and fluently decoding written words will affect ākonga ability to comprehend and make sense of the written text in a meaningful way (Kilpatrick, 2020).

Dyslexia – kaiako knowledge and understanding

Over half (52.6%, n=10) of kaiako had some knowledge and understanding of dyslexia, while the rest had limited to none (see Figure 8 below).
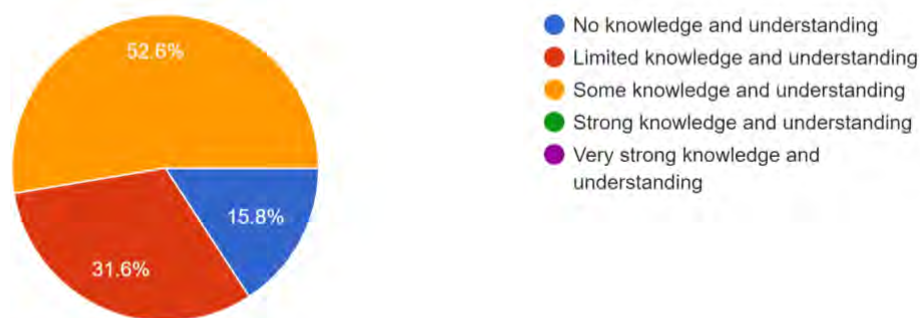

Figure 8. Frequency of kaiako knowledge and understanding of dyslexia

Kaiako 4 said, "during the last 5 years dyslexia has become more prevalent in Māori-medium kura". Most kaiako (57.8%, n=11) had personally and professionally known people who had been formally diagnosed with dyslexia and knew others who left kura early because they had difficulties with both languages, mainly English (57.8%, n=11).

Those with limited to some knowledge and understanding of dyslexia believed that students have trouble processing visual information, however dyslexia is a genetically inherited brain learning difference with processing the sounds of language (Genesee, 2019, cited in Grosjean, 2019) meaning that it is not a visual problem (Kilpatrick, 2020). Others mentioned difficulties with colour, working memory, retaining information, placement of letters in a word or words in a sentence, mixing words up, writing from right to left and backwards, slow to process, and "neurological challenges with print and their connections" (Kaiako 7).

Kaiako shared various thoughts on what they had noticed and the types of support they felt tamariki who present with dyslexic tendencies needed. They mentioned the need for visuals, multimodal

learning (hear, say, spell), paragraphs needing to be explained to them, lots of support, repetition, daily practice, hands-on activities to reinforce reading and speaking, and opportunities to shine in other areas. A kaiakao mentioned that these ākonga are extremely clever, have great ideas and oral language. Dyslexia appears to run in families (e.g. parent), some will try to hide it and it can cause anxiety. There is a belief that all dyslexic children learn differently and in their own time. Although they may progress differently, there is only one way the brain will learn to read (Dehaene, 2013; Seidenberg, 2017).

What we do know is that learning to read a language that has a similar or different orthography will be time-consuming and difficult for children with dyslexia (Ho & Fong, 2005), therefore early intervention is best (Hanks, 2011, cited in MoE, 2020b). This can be in one of their languages (e.g. te reo Māori or English) even if they have not yet achieved full spoken language proficiency in that language (Geva et al., 2000). Bilingual dyslexics can and eventually do form language-specific literacy skills in both of their languages (Klein & Doctor, 2003), implying that it is never too late (Genesee, 2019, cited in Grosjean, 2019; IDA, 2018; IMSLE, 2017; MoE, 2020b; NRP, 2000). "Cultural, economic, and educational circumstances obviously affect children's progress, but what they need to learn does not change" (Seidenberg, 2017, p. 101).

Structured literacy – kaiako knowledge and understanding

Key elements of reading success
Most kaiako identified or implied phonics and fluency with a heavier focus on vocabulary and comprehension as the main key elements of reading success. Kaiako 18 identified these elements plus combined "phonics/phonemic awareness, and syllables". This implies limited knowledge and an unclear understanding of the differences between phonological awareness, phonemic awareness and phonics[16] (see Figure 9 below).
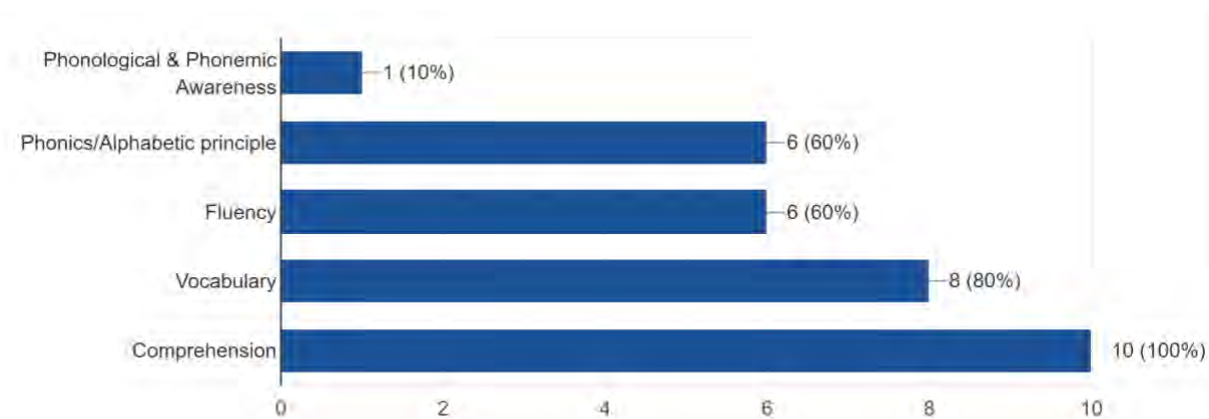

Figure 9. Key elements of reading success kaiako identified or implied

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[16] Also known as the alphabetic principle/code.

Instructional principles

Some kaiako (42.1%, n=8) were unsure of what type of instruction ākonga with dyslexic tendencies need to learn to read, write and spell in te reo Māori, with one making the general response "all kinds". Most kaiako (47.3%, n=9) mentioned a range of instructions similar to what they currently use. Kaiako 19 said, "explicit, systematic, cumulative instruction", which could imply these principles are emerging in kura Māori (see Figure 10 below). However there was no mention of the evidence-based diagnostic teaching principle where assessments and observations of the key elements of reading success are used to inform teaching, monitor progress, adapt and respond to the learning needs of ākonga. Kaiako 1 said, "transferring knowledge of one language to the new language" which can be achieved by developing basic literacy skills in their native language which can then be transferred into their new language (Cummins, 2012).
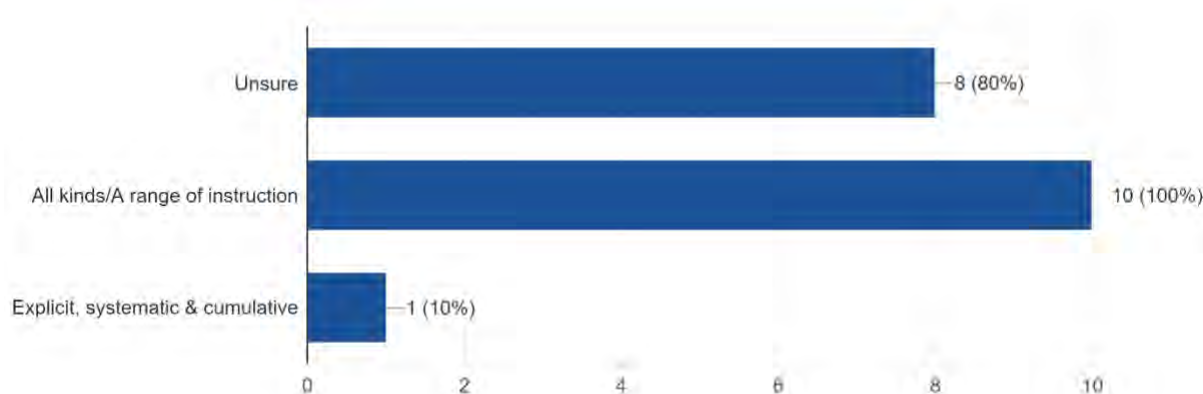

Figure 10. Instructional principles kaiako identified or implied.

In summary, it seems there are gaps in kaiako knowledge and understanding of structured literacy (key elements of reading success and instructional principles). Their knowledge and understanding appears to align with their current literacy practices of meaning (whole language) with some phonics (balanced literacy), implying that core instruction is frequently focused on guided/shared reading and although some form of phonics, decoding and spelling may be taught in word work lessons, the skills typically are rarely taught systematically (Spear-Swerling, 2019).

Professional learning

Tīpaopao (dyslexia) kete
Most kaiako (89.5%, n=17) have not heard of or read the Tīpaopao (dyslexia) kete that the Ministry of Education released early in 2020 (see Figure 11 below).

Kaiako 2, who did read it, felt it was "very generic. It seems to be a translation of existing resources. There is a gap regarding specific information related to Māori-medium teaching and learning". Kaiako were asked who they would contact or approach for help with dyslexia and the answers varied indicating an unclear pathway to how to access this type of support.
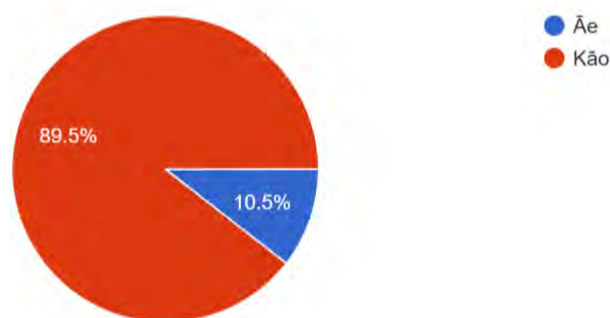
Figure 11. Frequency of how many kaiako have heard of and read Tīpaopao (dyslexia) kete

Dyslexia and structured literacy support

Some kaiako (42.1%, n=8) had no idea what type of support they might need to recognise and teach students who may present with dyslexic tendencies in Māori-medium contexts, nor did they know what type of professional learning in structured literacy they might benefit from. However, most (57.8%, n=11) said they would like help in:

- Recognising what dyslexia looks like in the classroom[17],
- Simple initial assessments,
- Early identification research-based tools,
- Practical interventions,
- Strategies and routines to use for teaching reading, writing, oral language,
- Strong examples of a teaching approach[18],
- More resources[19] for Māori with a Māori world view (Kaiako 14, 12, 2).

Kaiako 19 summed it up with wanting to know "how to diagnose, develop a needs-based long term plan and lesson plans of what and how to teach in an explicit manner".

It appears there are still limited appropriate Māori resources for teaching, unclear specific learning approaches and language assessments (ERO, 2000, 2002; Hollings et al., 1992; Jacques, 1991; Keegan, 1996). These findings indicate there is very limited research regarding literacy pedagogical practices (Hill, 2020) and there is still a need to develop professional and research knowledge in areas of early literacy teaching and learning in te reo Māori, assessment and relationships between reading, writing and oral language (McNaughton et al., 2006).

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[17] For example, a checklist to indicate difficulties.

[18] For example, how to teach students to manipulate sounds away from print and transfer it back to print.

[19] For example, a step-by-step online programme that collects evidence and can be evaluated over time.

Summary of main key findings

Kaiako noticed the following language difficulties in te reo Māori:

- Writing letters (84.2%, n=16),
- Phonological, phonemic awareness and spelling (73.6%, n=14),
- Slow inaccurate reading and writing – fluency (89.4%, n=17),
- Sound to symbol connections (decode/read) (73.6%, n=14),
- Symbol to sound connections (encode/write) (68.4%, n=13),
- Confusions with vowel sounds (read & write) (73.6%, n=14),
- Oral expression and understanding was well above written expression (89.4%, n=17).

Findings indicated that the slow speed of reading is the problem area that first appears in dyslexic readers of transparent orthographies – in this case te reo Māori.

Most kaiako noticed reading fluency (te reo Māori) and developmental language difficulties (Rose, 2009) of ākonga they have taught in both languages (te reo Māori & English), in particular with slow, inaccurate reading, spelling and writing and where oral expression and understanding was well above written expression (see Table 2 above).

Kaiako knowledge and understanding of structured literacy:

- Limited knowledge and an unclear understanding of the differences between phonological awareness, phonemic awareness and phonics.
- Gaps in kaiako knowledge and understanding of structured literacy (key elements of reading success and instructional principles).
- Knowledge and understanding appears to align heavily with their current literacy practices of meaning (whole language) with some phonics (balanced literacy).
- There appears to be a gap in using diagnostic assessments that assess the early foundational reading skills (phonological and phonemic awareness – away from print) and fluency.
- There appears to be an absence of an intentional, explicit, systematic cumulative approach to helping ākonga learn te reo Māori.
- Gaps in early foundational reading skills, explicit teaching of connecting the sounds to print (alphabetic code) and fluency.
- It appears there are still limited appropriate Māori resources for teaching, unclear specific learning approaches and language assessments.

Kaiako knowledge and understanding of dyslexia:

- Over half (52.6%, n=10) of kaiako had some knowledge and understanding of dyslexia, while the rest had limited to none (see Figure 8 above).
- Kaiako 4 said, "during the last 5 years dyslexia has become more prevalent in Māori-medium kura".

- Most kaiako (57.8%, n=11) have personally and professionally known people who have been formally diagnosed with dyslexia and knew others who left kura early because they had difficulties with both languages, mainly English (57.8%, n=11).
- Most kaiako use all kinds/a range of instructions and are unsure of what type of instruction ākonga with dyslexic tendencies need to learn to read, write and spell in te reo Māori.
- Most kaiako (63.2%, n=12) have taught ākonga who have difficulties with learning both te reo Māori and English.
- There is an unclear pathway for kaiako to access support for dyslexia.

Kaiako would like support with the following:

- Recognising what dyslexia looks like in the classroom.
- Simple initial assessments.
- Early identification research-based tools.
- Practical interventions.
- Strategies and routines to use for teaching reading, writing, oral language.
- Strong examples of a teaching approach.
- More resources for Māori with a Māori world view.
- Kaiako 19 summed it up with wanting to know "how to diagnose, develop a needs-based long term plan and lesson plans of what and how to teach in an explicit manner".

Conclusion and recommendations

This research has revealed that dyslexic tendencies can occur within Māori-medium contexts. Although my focus was on te reo Māori, it was interesting to note that kaiako noticed common difficulties that dyslexic children struggle with in both languages (te reo Māori and English). It also identified the need for appropriate resources in te reo Māori for kura Māori contexts and how in my role as an RTLB I could support kaiako in the areas of professional learning on dyslexia and structured literacy.

Although this was a small scale research study, there are strong themes that came through the findings. There is an opportunity to take this further by doing the following:

- Replicate the study on a larger scale to see if the same themes resonate in another time and place.
- Create checklists and prompt sheets to support kaiako with identifying and responding to tamarki with dyslexic tendencies.
- Conduct a research project using a structured literacy approach with a focus on te reo Māori within kura kaupapa Māori (Levels 1 & 2).
- Conduct a research project using a structured literacy approach with a focus on transitioning to formally learning te reo Pākehā within kura kaupapa Maori.

Structured literacy has potential to benefit all ākonga, especially those who may present with dyslexic tendencies, to learn to read, write and spell in te reo Māori. It's encouraging to know that children who have difficulties can learn to master te reo Māori first and then cross transfer these skills into learning English. Research shows that the brain mechanisms for reading are the same around the world (Dehaene, 2013). The key is understanding how the brain learns to read, knowing what to teach (key elements) and how to teach it (instructional principles), so that te reo Māori – the essence of culture (Waitangi Tribunal, 2020) that imparts and vitalises "Māori traditions, history and knowledge" (Tocker, 2015, p. 24) – can continue to thrive.

Mā te kimi ka kite, Mā te kite ka mōhio, Mā te mōhio ka mārama

Seek and discover. Discover and know. Know and become enlightened.

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AUTHOR PROFILE

Shelley Manuel

Kia ora, Kia orana tātou kātoatoa
He uri au nō Rarotonga
I tupu ake au ki Tāmaki Makaurau
E noho ana mātou ko tōku whānau ki raro i te marumaru o Rāhui Pōkeka
Ko Shelley Manuel tōku ingoa
He Pouwhirinaki ahau nō te kāhui tekau mā ono

Shelley Manuel (nee Boaza) is of Kuki 'Āirani and NZ Pākehā descent, grew up in South Auckland and now resides in Rāhui Pōkeka (Huntly) with her whānau. She is a Pouwhirinaki (RTLB) in Cluster 16, Kirikiriroa (Hamilton) and prior to this a classroom teacher at various schools in South Auckland and Rāhui Pōkeka. Over the years Shelley continues to add to her kete of knowledge, skills and learning: SPELD in 2011 (Level 5), IMSLE (Institute of Multisensory Structured Language Education training) in 2017-18, and graduated with a Masters of Specialist Teaching with Distinction in Learning and Behaviour, including mentoring and coaching in 2021. Shelley is interested in supporting sustainable ways forward for mokopuna with learning differences, in particular dyslexia.

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