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Barriers and enablers for school leaders implementing PB4L Tier 2 with fidelity in
New Zealand secondary schools.

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Abstract

This thesis explores the barriers and enablers to implementing Positive Behaviour for Learning (PB4L) Tier 2 with fidelity in New Zealand secondary schools. PB4L was introduced to New Zealand schools in 2010. It provides a framework that schools use to guide the implementation of evidence-based practice with the goal of reducing problem behaviour and providing a positive school culture. With a focus on evidence-based practice, fidelity of implementation is a core principle of PB4L. PB4L consists of three tiers that provide a continuum of behaviour supports for students. Tier 2 of the continuum targets approximately 15% of students within a school and offers small group response before students develop habitual patterns of behaviour.

This mixed method, sequential explanatory design was conducted in two phases. In Phase I a quantitative survey was administered to principals and Tier 2 team leaders in New Zealand secondary schools. This was used to identify the extent to which schools were implementing Tier 2 interventions within their school, and to the identify barriers and enablers schools were experiencing in implementing PB4L Tier 2. In Phase II qualitative data was collected through semi-structured interviews with PB4L Tier 2 team leaders who had a wide range of experiences in the implementation of PB4L Tier 2, adding depth of explanation to the quantitative data.

A number of barriers and enablers were identified, often the barrier or enabler was a different side of the same coin. Key enablers that emerged from this mixed methods research included the facilitation of shared learning between secondary schools, schools establishing strong external relationships with outside agencies, and proactive school leadership. Significant barriers included the time investment required to achieve ‘fidelity’ in interventions, efficient access to data, the complexity of the secondary environment and the

limited range of easily resourced evidence-based interventions for use in a secondary school context.

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Introduction

In 2009 the Taumata Whanonga Behaviour Summit¹ was held to discuss concerns about the extent of problem behaviour in New Zealand schools. The summit concluded that New Zealand would need to look overseas to find effective, culturally responsive, evidence-based research and practice to use in New Zealand schools (Ministry of Education, 2015). One of the solutions adopted was Positive Behaviour in Schools (PBIS) from the United States. The following year schools in Aotearoa were implementing Positive Behaviour for Learning (PB4L), the New Zealand version of PBIS. The Ministry of Education (MoE) gave priority for funding and training for PB4L to schools who were low decile with a high proportion of Māori and Pasifika students (Elder & Prochnow, 2016). Within three years of implementation 408 schools were PB4L schools. In September 2019 the MoE identified 1026 New Zealand schools as PB4L schools (Ministry of Education, 2019a). Low decile schools with high Māori and Pasifika student composition still had priority, and the MoE had also added secondary schools as priority schools (Ministry of Education, 2019b).

PB4L History

It is important to understand the education environment that existed in the United States when PBIS research started. This will aid in the understanding of key terms, processes, and premises within PB4L.

¹ The Taumata Whanonga 2009 student behaviour summit was organised by a number of key organisations within New Zealand education. Other key stakeholders were also invited. A broad spectrum of educational leaders met to address concerns held about young people's behavioural responses within the education system. The summit agreed on a series of priorities, one of which was to focus on "successful evidence-based programmes". A steering group was then established to create a comprehensive action plan to be presented to the then Minister of Education Anne Tolley (Ministry of Education, 2009).

The US education system underwent major restructuring beginning in the 1980's after a number of reports on American public schools questioned the ability of schools to meet the workforce needs of the 21st century (Brooks, Scribner, & Eferakorho, 2004; Murphy, Beck, Crawford, Hodges, & McGaughy, 2001). Government at federal and state level introduced a series of laws over time, arguably the most noteworthy being the No Child Left Behind Act 2002 and Individuals with Disabilities Education Act 1990 (IDEA). This legislation made fundamental changes to education practice in the United States (Domitrovich et al., 2008; Marsh, Pane, & Hamilton, 2006). Two relevant impacts of the law changes that created an environment conducive to the development of PBIS were:

- Increased accountability for schools using objective, measurable outcomes (such as standardised testing).
- The reform of government funding criteria for education research. Funding for research was prioritised to support research that used 'scientific, evidence methods' (Mertens, 2014). The expectation was that funded education research be replicable and draw strong empirical conclusions (Christ, 2014; Etscheidt & Curran, 2010).

At the same time; zero-tolerance legislation also impacted education in the United States significantly. What began as enforcing zero-tolerance for guns in school had expanded through state law and school district regulations to include anything from drug possession to dress code violations (Nussbaum, 2018). Zero-tolerance meant schools enforced a compulsory consequence for school rule breaches regardless of mitigating circumstances or the degree of the breach (Heitzeg, 2009; Skiba & Knesting, 2001). Expulsion and suspensions in the United States increased exponentially (Karaxha, 2017).

It was in an educational environment showing concern about growing numbers of expulsions and suspensions, concerns about preparedness for work, increased accountability and increasing priority being placed on scientific, evidence-based, outcomes focused, research that Horner and Sugai first started publishing their research on PBIS in the 1990s. Since then, the research base in the United States for PBIS has rapidly expanded; with a number of centres of research based in universities across the United States.

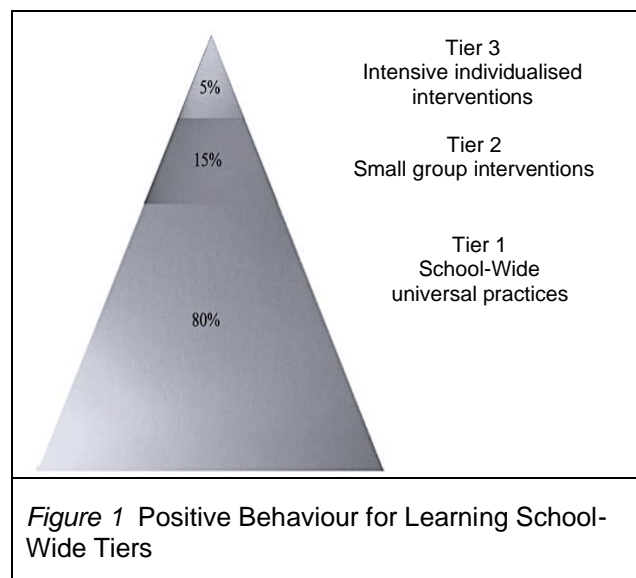
While the United States was experiencing significant change, New Zealand was also experiencing education reform with similar themes. In Aotearoa, unease with education was created with the Picot Report² and other reports discussing falling literacy rates and falling PISA rankings (Codd, Gordon, & Harker, 1990; Smyth, 2011; Wylie, 2012). Government working parties that reviewed education called for national standards, required information for monitoring national performance and standardised national targets. In addition there was a major restructuring to government support of schools (Fitzgerald & Knipe, 2019; Kelsey, 2015; Smyth, 2011). While the changes made were not as substantial as in the United States accountability was now also a key theme for New Zealand schools.

PB4L- School-Wide

The School-Wide model provides a structured framework that the school uses as a guide to implement evidence-based practise. It is not a packaged system and schools spend

² In 1987 the Taskforce to Review Educational Administration was established. Their report known as the Picot Report was released in May 1988. The Picot Report found that the current model of education was neither equitable nor efficient and called for a more efficient model. In part, the report recommended, reforms to education bureaucracy, that schools become self-managing, and responsible for learning outcomes. Each school was also to have a charter to support clientele and community. Much of the Picot Report's recommendations were adopted by the New Zealand Government in 'Tomorrow's Schools'(Openshaw, 2014).

considerable time planning to ensure the systems and procedures established fit the context of the school (Flannery, Frank, Kato, Doren, & Fenning, 2013). PB4L presumes that implementation of PB4L systems will lead to safe climate, reduce problem behaviour and establish a positive school culture. PB4L focuses on measurable outcomes. A continuum of behavioural support is provided over three tiers as outlined in Figure 1. At Tier 1 all students are directly instructed in appropriate behaviour and are positively acknowledged for displaying expected behaviours. Approximately 15% of students will need Tier 2 supplementary small group support. Students that continue to be a challenge will be worked with individually; about 5% of students (Flannery, Fenning, Kato & McIntosh, 2014).



Tier 1 provides the universal base for PB4L School-Wide (PB4L-SW). It provides systems for all students in all school contexts, 80% of students are expected to fully respond to

these universal practices. The MoE *PB4L School-Wide Tier One Implementation Manuals* provides four criteria required in a positive school environment.

- “expectations are consistently clear
- students are consistently taught expected behaviours
- expected behaviours are consistently acknowledged
- inappropriate behaviours are consistently responded to in a fair and equitable way.” (Ministry of Education, 2015, p. 3)

PB4L is aligned with Response to Intervention (RTI)⁴, “where the school focuses on developing a predictable, efficient, and effective school climate” (Flannery et al., 2014). Key to PB4L is the use of data to evaluate outcomes and data to make decisions regarding student needs (Lewis, Barrett, Sugai, & Horner, 2010). The primary source of data is Office Discipline Referrals (ODRs). The Tier 1 team will evaluate ODR data on a regular basis which then can be used to formulate actions plans for the school.

PB4L Tier 2

In New Zealand, schools cannot move to Tier 2 of PB4L until they have Tier 1 universal practices embedded in the school. This is usually assessed by the School-Wide Evaluation Tool (SET) and the Benchmarks of Quality (BoQ) which provide a measurable ‘grade’ or percentage

³ The PB4L School-Wide Tier One Implementation Manual provides extensive guidance to schools on establishing Tier 1 (PB4L-SW) to ensure contextual fit. Schools implementing Tier 1 will create school values, define expected behaviour, and establish reward systems that will be appropriate to that school.

⁴ In the United States the Disabilities Education Improvement Act (IDEA 2004) introduced the concept of RTI, a means of providing early intervention for children at risk of academic failure. IDEA granted schools access to 15% of their special education funding to support early academic intervention for students under RTI. Selection of students is based on academic data and success is measured by data-based outcomes. RTI is a multi-tiered system, the type of academic intervention changes, and the intensity of support increases, as students move through the tiers (Fuchs & Fuchs, 2006).

for the school's implementation of Tier 1. Schools are also asked to qualitatively analyse the culture of the school (Ministry of Education, 2017).

Tier 2 provides more intensive preventative interventions for children who do not respond adequately to the Tier 1 universal programme (Bradshaw, Koth, Thornton, & Leaf, 2009). The goal of Tier 2 is to provide efficient, prompt, small group response before students develop habitual patterns of behaviour. Tier 2 PB4L has a number requirements;

- readily available for referral students
- require little assessment prior to implementation
- required few additional resources and be cost effective
- support multiple students with few resources
- are in line with Tier 1 universals

(McIntosh, Campbell, Carter, & Rossetto Dickey, 2009; McIntosh, Horner, & Sugai, 2009)

In addition; selection of students should be based on a wide variety of data, interventions need to be evidence based, implemented with fidelity and the intervention should be selected according to the function of behaviour. Tier 1 schools implementing Tier 2 are provided with a comprehensive framework to follow by the MoE.

Tier 2 interventions

The MoE Tier 2 Manual recommends a number of evidence-based interventions at Tier 2:

- Check In-Check Out (CICO): The student meets with their coordinator at the beginning and end of each school day. The student gets regular feedback from teachers throughout the day.

- **Check and Connect:** Students selected for Check and Connect are at risk of disengaging with school. Check and Connect is a two year educational mentoring programme, where students are matched with a trained mentor.
- **Social Skills Groups:** Provides support for students to develop socially acceptable behaviour skills. The grouping will depend on the behaviour being addressed and the function of behaviour.
- **Academic Support:** An academic skills group that recognises that students who have poor behaviours often battle with low academic achievement. The purpose is to help students ‘fill the gaps’ and engage positively with an adult.
- **New Comers Club:** At Tier 2 New Comers Club provides transitional support for groups of students who are likely to have greater difficulty transitioning to a new school.

The intention for all Tier 2 interventions is to intensify support to develop the values, behaviours and social skills from the Tier 1 (universal) stage of PB4L.

Fidelity

There are two aspects of fidelity in PB4L. The first is the fidelity of the ‘tier’, that is; the extent to which PB4L been implemented as it should be within a school (Childs, Kincaid, George, & Gage, 2016). At Tier 1 (universal) this is commonly measured by the SET and at Tiers 2 and 3 by the Benchmarks of Advanced Tiers (BAT) or the Tiered Fidelity Inventory (TFI). Both measures provide concrete, numeric results to measure fidelity. Accurate data collection is a fundamental requirement for these measures.

PB4L Tier 2 interventions should be evidence based, Kincaid and Horner (2017) state that this means that there is empirical evidence that the intervention or programme is ‘causally’ related to specific outcomes for students. The second component of fidelity is the extent to which a specific intervention adheres to the ‘evidence base’; that is, how much the intervention copies the researched intervention (Benner, Beaudoin, Chen, Davis, & Ralston, 2010). The assumption is, modifying the intervention (either by diluting the dosage or modifying content), may lead to a loss of effectiveness (Bradshaw, Koth, et al., 2009). Changes to the programme may mean it is no longer ‘evidence based’.

Function of Behaviour

Tier 2 interventions should be matched to the student’s needs. To assess their needs, the student’s function of behaviour needs to be taken into account (Ministry of Education, 2017). A function of behaviour assumes that when a student is displaying problem behaviour regularly they will be behaving in this way because the behaviour is ‘working’ for the student. Therefore the behaviour has an objective (or function) for that person (Ministry of Education, 2015, p. 19). The PB4L School-Wide Tier 2 Implementation Manual identifies four functions of behaviour in school; to gain adult attention, to gain peer attention, to avoid tasks, and to avoid social interaction (Ministry of Education, 2017).

If the Tier 2 intervention can be matched to the function of the behaviour outcomes are likely to be better. This is quite complex; a student may have multiple functions. Sometimes the same behaviour can be due to different functions. For example a student who is misbehaving in class may be doing it to gain the teachers attention, to gain peer attention or to avoid tasks. (Reinke, Stormont, Clare, Latimore, & Herman, 2013). If a student is misbehaving and the function of the behaviour is to seek adult attention then the CICO process meets the function of

behaviour by guaranteeing adult attention both in class and at the check in and check out sessions at the beginning and end of the day. On the other hand if the function is to avoid work then the CICO card is unlikely to improve behaviour and in some cases may intensify the poor behaviour because the function of behaviour is not being met (McIntosh, Campbell, Carter, & Rossetto Dickey, 2009; Reinke et al., 2013). If interventions meet the function of behaviour in a positive way then the problem behaviour should improve and the Tier 2 team can plan to fade the intervention.

Support and Resources

In New Zealand, PB4L is centrally administered by the Ministry of Education. The ten MoE regions each have a Regional PB4L manager as well as School-Wide practioners that work with individual schools to train and advise staff as they implement each of the tiers. Boyd and Felgate (2015) stated that a School-Wide practioner worked with approximately twenty schools each. The usual practice is for School-Wide practioners to provide a number of training days at each tier that are attended by a variety schools that are at the same stage of PB4L. Schools are also expected to take part in a PB4L cluster working with other schools. A cluster is generally composed of primary, intermediate, and secondary schools. The MoE also provides significant online resources to support implementation of all Tiers, including step-by-step manuals for Tier 1 and Tier 2.

PB4L has morphed somewhat. In the United States, Government has added reforms to move to a Multi-tiered System of Support (MTSS) that includes health (particularly mental health), RtI for literacy and mathematics, positive behaviour programmes (like PBIS) as well as moving special education into general education. (Castillo et al., 2018). In New Zealand the MoE have also added to the original PB4L concept with a series of complimentary initiatives.

Restorative Practice, My Youth, Wellbeing in Schools, and Incredible Years, Incredible Years – Autism; are examples of programmes included under the umbrella of PB4L. This research will focus specifically on PB4L Tier 2 and Tier 2 interventions, as outlined in the PB4L Tier 2 Implementation Manual (published by the Ministry of Education) and will discuss the complimentary programmes within that context.

The Researcher and PB4L Tier 2

So where does the researcher’s interest in PB4L Tier 2 in secondary schools come from? In 2014, I was working in a large co-educational secondary school. The school was an early adopter of PB4L and I had seen the benefits of PB4L-SW in my classroom through improved relationships and improved behaviour in my classroom and in the classrooms of others. I became a member of the PB4L-SW team. By the end of 2014 the school had met the criteria to advance and become a ‘Tier 2’ school within the PB4L framework.

As a long-term dean and member of pastoral team, I was invited to take part in the Tier 2 training days provided by the MoE and to be part of the Tier 2 team. The training days were presented by an enthusiastic, highly articulate School-Wide practioner who ‘hooked us’ by explaining the researched benefits of PB4L Tier 2 interventions. Spread out over the course of the year the series of training days introduced different components of Tier 2 and set intermediary homework for the school to complete. The Tier 2 team went about completing the set tasks with a view to establishing some piloted Tier 2 interventions by the end of the year. We had trouble finding the time to work together and as a result the group became smaller and people worked far more independently than was intended. In Term Three, I piloted CICO with a small group of Year 9 boys who had been identified as ‘seeking adult attention’. They displayed

low level but consistent attention seeking behaviour in the classroom. They were students I had a strong trust relationship with and we had worked together successfully on previous occasions.

The pilot was implemented with fidelity as I facilitated a check in and a check out each day with the students. The check in and the check out needed to be in a predictable place and I needed to be in that space at the agreed upon time; something that took extraordinary commitment. As a dean I often had to manage unexpected situations, and my schedule could change at very short notice. In order to make ensure the students checked out at the end of the day I arranged for them to leave class five minutes early to see me. The young men involved developed their own system. They picked each other up from class and moved around the school en masse as they proceeded to our check out, knocking on classroom doors and loudly letting teachers know they were there to pick up 'Fred' for Ms Andrews. It certainly met their function of behaviour. They were getting plenty of adult attention but not in the way anticipated. I was exhausted, trying to juggle my classes, my deaning role, the CICO pilot and I was dealing with unhappy staff. The pilot was a disaster.

In addition to this, other members of the Tier 2 team at the school were also trialling or researching in their area and they too were struggling to make progress. However, as a group we kept refocusing on the benefits of PB4L Tier 2. The data provided at training showed improved outcomes for students, suspensions dropped, exclusions dropped. This work mattered. Small group interventions also made logical sense by efficiently using resources. Each time we attended a PB4L Tier 2 training day our commitment was renewed. Yet our school was not getting it right, despite our best effort. I wondered how secondary schools managed to implement Tier 2 with fidelity. Hence the question; what are the barriers and enablers for secondary school leaders in implementing PB4L Tier 2 interventions with fidelity?

Literature Review

The question has been posed; what are the barriers and enablers for secondary school leaders in implementing Positive Behaviour for Learning (PB4L) Tier 2 interventions with fidelity? The literature review was entered into with only a single experience, and a relatively limited perspective of PB4L Tier 2, so it was essential to take an open. A series of ever widening series of search terms such as “PB4L Tier 2” PB4L + “Tier 2”, “Positive Behaviour” + “Tier 2 interventions”, fidelity + “Tier 2” + “Positive Behaviour in Schools” (PBIS), “high school” + “Tier 2”, and leadership + PBIS were used to mine research. However, little relevant New Zealand research was obtained. New Zealand is in the early stages of implementing PB4L and the research base is minimal as a result. PBIS in the United States has been extensively researched but the focus is primary and middle schools. Flannery et al., (2013) states that high schools represented only 12.6% of all PBIS schools and research into PBIS in secondary schools is difficult to find. The development of Tier 2 interventions in high schools can be considered to be in the “nescient stages” (Swain-Bradway & Malloy, 2009, p. 117). Nescient is an interesting choice of word given some of its synonyms are naïve, obtuse and uninformed. The literature review is organised into themes that emerged from the research.

Fidelity and Data

A core element of the research question is “with fidelity’ as fidelity is key to PB4L at any tier (Bradshaw, Debnam, Koth, & Leaf, 2009; McIntosh et al., 2011; McIntosh et al., 2017). As discussed in the introduction, there are two key aspects to fidelity within PB4L Tier 2; the overall fidelity of Tier 2 implementation within a school and the fidelity of an individual intervention.

Fidelity of Tier 2 – School Wide

Fidelity of Tier 2 is the extent to which PB4L Tier 2 been implemented as it should be within a school. Fidelity at Tier 2 can be measured by the Benchmarks of Advanced Tiers (BAT) or the Tiered Fidelity Inventory (TFI) (Massar, McIntosh, & Mercer, 2019). Both tools provide concrete, numeric results that indicate the extent to which a school has the required tier structures (Algozzine et al., 2014; Ministry of Education, 2017). Accurate data collection is a fundamental requirement for these measures. Both the TFI and the BAT also examine fidelity of implementation of other tiers (McIntosh et al., 2017). The BAT assesses Tier 2 and 3 by assessing 112 items⁵. The TFI can assess all three tiers utilising 45 items. The BAT and the TFI require a ‘mark’ of between 0 and 2 to be awarded that reflects the extent to which each item is implemented in the school. The item scores added together provide an overall calculation of fidelity.

The BAT has been the tool available for New Zealand schools to use since Tier 2 was rolled out, the TFI has only recently been piloted by the Ministry of Education (MoE). Research by McIntosh et al. (2017) and Massar et al. (2019) confirm the validity and reliability of the TFI by obtaining multiple fidelity measures and completing Pearson correlations between the TFI and alternative measures. The research found the TFI was a reliable and valid measure of fidelity (particularly if carried out by an external evaluator). They made the statement within their research that there is a “lack of detailed technical adequacy data for the BAT” (McIntosh et

⁵ An item is a component required for fidelity. For example item 23 of the BAT; “the Tier Two strategy uses accurate and objective data to adapt, modify, and improve support” (Ministry of Education, 2017, p. 196). Item 2.5 of the TFI; “the Tier 2 team has multiple ongoing behaviour support interventions with documented evidence of effectiveness matched to student need” (Algozzine et al., 2014, p. 13).

al., 2017, p. 11). An extensive search of literature supported this claim, as no research could be sourced to support the technical adequacy of the BAT.

Within the TFI there are three distinct sections to assess each Tier. The research of Massar et al. (2019) investigated whether the TFI is a valid fidelity measure to assess individual tiers. That is, when using the thirteen items that measure Tier 2 fidelity, would this give a valid fidelity measure for Tier 2 by itself? Using quantitative data, the authors found strong concurrent validity against other fidelity measures and strong test retest results. Based on research, the TFI is likely to be the preferred measure of fidelity, as it is simpler to conduct than the BAT (112 items vs 45 items), it is technically adequate, and it is able to assess tier by tier so schools can use the 13 items at Tier 2 to improve fidelity. A key question that follows is; how are New Zealand schools measuring the fidelity of PB4L Tier 2?

Fidelity of Tier 2 - individual interventions

Domitrovich et al. (2008) conducted a study of fidelity of evidence-based practice, claiming that prevention programmes are unlikely to be of high quality when outside of a research study. Domitrovich et al. (2008) states that for systematic interventions it is not uncommon for schools to take three to five years to reach high implementation quality. This research clarifies the fidelity definition to include dosage and quality of delivery (that is: the quality of who delivers an intervention and how it is delivered). Factors that support successful fidelity at a macro level include;

- Government funding and support
- Partnership with businesses and partnership with research institutions.
- Quality of training

- Cost effective, well validated measures of fidelity. Preferably these measures should be independently assessed rather than self-assessed. (Domitrovich et al., 2008)

The importance of external support is also highlighted by the State of Maryland in the United States. Maryland's Department of Education has committed to, and is one of the biggest in the United States in number and concentration of PBIS schools. The cornerstone of Maryland's success is the combination and contribution of stakeholders with funding being obtained from federal and state government, partnerships with businesses in addition to research partnership with universities (Bradshaw et al., 2012). Braided resourcing and nested leadership have ensured training within schools and dissemination of programmes, achieve high levels of fidelity, that research questions are rigorously addressed, and funding issues are proactively worked on (Bradshaw et al., 2012; Greenberg, Domitrovich, & Bumbarger, 2001).

Domitrovich et al. (2008) identifies school level factors that increase programme stability and support fidelity including:

- interventions that are aligned to the school mission
- gaining staff voice in the interventions the school adopts
- organisational health
- active school leadership
- allocating time to staff to implement the programme to increase the stability of the programme

On the other hand Domitrovich et al. (2008) supposed that schools with high mobility or absenteeism are more likely to find it difficult to meet fidelity standards; but other PBIS research

disagrees with this (Bradshaw, Pas, Debnam, & Lindstrom Johnson, 2015). So demographics are debatable barriers or enablers.

Data collection

Key to Tier 2 implementation with fidelity is the prompt use and entry of data. At Tier 2 data is the crux of decision-making (Scott, Alter, Rosenberg, & Borgmeier, 2010). Data is used in the following ways at Tier 2:

- To identify students that require Tier 2 intervention.
- To determine the function of the behaviour in class.
- To monitor the intervention for appropriateness, intensification or the need to wind it down.

Office Discipline Referrals (ODRs) are fundamental building blocks used for decision making at PB4L Tier 1 and are a component of the data used in Tier 2 to identify students in need of Tier 2 intervention. An ODR covers any instance where a student is referred outside of the classroom for breaking a school rule, where it cannot be handled by the classroom teacher (Clonan, McDougal, Clark, & Davison, 2007). ODRs can provide an effective barometer for whole school behaviour, but ODRs are not always suitable when analysing the behaviour of an individual student (Irvin, Tobin, Sprague, Sugai, & Vincent, 2004). With proper training, ODRs can be an effective method of identifying students who externalise poor behaviour (for example; are disruptive in class) but the ODRs by themselves are not sufficient to identify students who need additional supports. (McIntosh, Campbell, Carter, & Zumbo, 2009; Pas, Bradshaw, & Mitchell, 2011). Therefore Tier 2 teams need to develop systems to collect a wide range of additional data in order to identify all students that require Tier 2 interventions.

In secondary school the data required may not be simultaneously accessible, for example, credits, qualifications trends, attendance, behaviour and referral information (Flannery et al., 2014). Without the correct knowledge and appropriate data secondary schools will struggle to collect and effectively use different types of data to determine the most appropriate Tier 2 interventions (Bradshaw et al., 2015). Additionally, secondary schools will be challenged by not having regular access to data that could be manipulated in a user-friendly way. Therefore secondary schools beginning Tier 2 require a great amount of external assistance to organise their data (Flannery et al., 2014; Flannery et al., 2013). Within the New Zealand context, secondary schools are already struggling with data collection at PB4L Tier 1 (Boyd & Felgate, 2015). Due to the additional complexity of data required at Tier 2; does a lack of data access provide a barrier to secondary schools? Are schools using a wide range of data to identify Tier 2 students? Are schools evaluating interventions for effectiveness?.

Cultural Responsiveness

PBIS is well established in the United States however, there has been increasing doubt about its cultural responsiveness. Ethnic minorities are over represented in ODRs, suspension, and expulsion rates. This is particularly the case for African-American students (Girvan, Gion, McIntosh, & Smolkowski, 2017). Vincent, Randall, Cartledge, Tobin, and Swain-Bradway (2011) quote extensive research that discusses the continuation of disproportionate discipline outcomes for non-white students for PBIS in the United States. This is because “SWPBIS emphasises sameness and cultural responsiveness emphasises different” (Vincent, Randall, et al., 2011, p. 221).

Girvan et al. (2017) investigated the racial disparity in relation to completion of ODRs. ODRs were divided into two sections; ODRs that required the teacher to make a subjective

judgement (for example defiance and disrespect) and ODRs that were objective (for example, truancy). They found that where the teacher had to make subjective judgement, minority students (particularly African-Americans) were significantly more likely to receive an ODR than White students at primary, middle, and secondary school levels. The authors attribute this to implicit bias rather than any deliberate racism from teachers. It is interesting to note that Girvan et al. (2017), despite finding strong evidence of implicit racial bias in the completion of ODRs, continued to justify PBIS's track record. The research of Vincent, Swain-Bradway, Tobin, and May (2011) was cited, claiming that PBIS has been shown to significantly reduce the racial discipline gap. Actually, Vincent, Swain-Bradway, et al. (2011) found a very tentative connection between PBIS and a slightly narrowing gap of ethnic disproportionality in ODR completion, further, the study had significant limitations including PBIS schools (versus non-PBIS) having high levels of non-reporting of ethnicity on the ODRs.

ODRs are key to identifying the students that need Tier 2 support, therefore if there are disproportionate numbers of ODRs that have been issued due to implicit bias then there will be disproportionate numbers of minority students in Tier 2 interventions. Students subjected to implicit bias in primary or middle school are alienated from education at secondary school and this leads to additional ODRs at secondary school (Girvan et al., 2017). Therefore, it becomes more imperative that Tier 2 interventions are culturally responsive. Vincent, Randall, et al. (2011) suggest culturally responsive educational practices that could be used alongside PBIS that include;

- working in Tier 2 social skills groups in a student's first-language.
- ensuring operational definitions for behaviour do not have cultural subtext. For example, the term 'disrespectful' varies from culture to culture, so determining

whether a student is ‘disrespectful’ requires a teacher to make a subjective judgement that then has a cultural lens attached. Eliminating definitions with a cultural subtext will reduce the disproportionality of ODRs.

There is some acknowledgement of cultural responsiveness in the TFI, however it is just a ‘mention’, as part of one of the criteria in the TFI (Noltemeyer, Harper, & James, 2018). As a result, schools can obtain high fidelity scores for Tier 2 and not be culturally responsive. To be culturally responsive schools cannot ‘tinker around the edges’. Vincent cites the case of a primary school who could not find a solution within PBIS and needed to use an additional, intensive programme to address the cultural lens staff bring to their work.

PB4L and cultural responsiveness

New Zealand’s Treaty of Waitangi⁶ obligations and unique bi-cultural status require that PB4L-SW and any further Tier 2 interventions are culturally responsive and not another “onslaught on Māori students and their cultural norm” (Bishop & Berryman, 2006, p. 374). Within a New Zealand context, Savage, Macfarlane, Macfarlane, Fickel, and Te Hēmi (2014) question the appropriateness of PB4L for Māori, stating that the lack of evidence around what works for Māori in this area has led to incoherent implementation in schools. They state that as PB4L is imported it perpetuates dominant views and does not focus on Māori. These authors worked with Māori academics and others involved with kaupapa Māori approaches. Their grounded theory approach says that Māori expertise needs to be located at the centre of decision making, and that whānau, hapū and iwi need to be enabled to participate in the development of

⁶ Biculturalism refers to the concept of ‘Māori and Pākehā/European in a relationship of social and political partnership. The relationship was established when representatives of each group signed the Treaty of Waitangi in 1840’(Lourie, 2016, p. 638).

school culture. An initial reaction was to consider as an enabler, schools working alongside whānau, hapū and iwi to develop Tier 1 values and Tier 2 supports for students. However Savage et al. (2014) noted:

Western views tend to be descriptive, focus on actions and therefore result in a view of behaviour as child-centred problems. In contrast, a Māori worldview of behaviour is seen as multidimensional, based on relationships and relational trust and tend to view behaviour in ecological and holistic ways.....an ecological perspective includes paying attention to the environmental variables that exist around and have an impact on the child. (2014, p. 170)

Therefore, a further barrier could actually be the Tier 2 focus on the behaviour or the function of the behaviour, rather than the whole child, which leads may lead to a lack of cultural responsiveness within PB4L at all tiers. Cultural responsiveness needs to be core to PB4L interventions.

School Structures and the Impact on Tier 2

One of the key issues that creates the complexity in secondary schools is the way school is structured. Researchers have identified a number of elements that create possible barriers that are specific to secondary school that are likely to impact Tier 2.

- Formal structures create division within the school. Secondary teachers usually work within departments that are siloed and may have sub-cultures of their own. There are also often academic layers within secondary schools (for example academic scholarship versus vocational learners); this creates boundaries of different kind. Often due to the size of the school there are also social groups within staff that may create division (Murphy et al., 2001).

- At secondary school, students have multiple teacher relationships (Bradshaw et al., 2012). At a typical secondary school, a student will tend to have several subjects in a day all with different teachers.
- Secondary schools tend to be large. Large schools (greater than 400 students) tend to have greater difficulty implementing PB4L interventions (Boyd & Felgate, 2015). The wide skill base needed on teams creates planning, timing and coordination issues (Flannery et al., 2013). Further, getting a large staff to agree to consistent consequences is difficult, as secondary schools usually have complex discipline systems in place to deal with violations. So not only do staff have to achieve consistency, they may also have to agree to overturn well known and established practices (Flannery et al., 2013; Elder & Prochnow, 2016).
- Secondary schools have multiple administrators that tend to have siloed responsibilities (Flannery, Sugai & Anderson, 2009). This may mean they are not focused on PB4L interventions alongside their own responsibilities (Nelson, Martella, & Marchand-Martella, 2002; Turri et al., 2016). An extreme example could include a SLT who have clash of goals or portfolios and senior leadership who compete to access resources (Harris, Leithwood, Day, Sammons, & Hopkins, 2007).
- Secondary schools have higher rates of ‘delinquent behaviour’ and less evidence based programs available to them (Bradshaw et al., 2012; Greenberg et al., 2001). The culture and developmental age of students may mean that many suggested interventions do not work as students increasingly seek adult approval. Further

students may require significant voice within the school (Flannery et al., 2013; Flannery, et al., 2009).

- Secondary schools have high stakes outcomes (NCEA, University Entrance and vocational pathways).

A further issue identified from the literature is, in the United States Tier 2, interventions are commonly provided by school social workers, school psychologists, school counsellors and other behaviour intervention specialists; that is, people other than classroom teachers, deans and senior leaders (Flannery et al., 2014; Lindsey & White, 2009). Further, due to the Individuals with Disabilities Education Act 1990 mandated processes, most U.S schools have systems and expertise already in place including functional behaviour analysis. Will the different type of expertise within New Zealand schools provide a barrier? Does the structure of secondary schools provide a barrier to implementation of Tier 2?

Tier 2 and Demographics

Bradshaw et al. (2015) analysed base line bullying data (as a measure of school disorder) and demographic data to determine what factors correlated with fidelity at each Tier. The researchers identified demographic variables from a wide range of research and correlated this to their school's School-Wide Evaluation Tool (SET) which measures Tier 1 fidelity, and the Individual Student Systems Evaluation Tool (ISSET) which measures fidelity across all three tiers⁷.

⁷ The ISSET is generally not used in New Zealand.

Analysing thirty-one secondary schools, the study found that the higher the baseline bullying level, the more likely they were to implement Tier 1 and Tier 2 with fidelity. There was no particular reason provided for this; but perhaps schools with higher levels of disorder are more motivated to implement PBIS, so achieve high rates of fidelity. Other factors that were predicted to correlate to the fidelity at each Tier were, suspension rates, attendance, structural composition (including size and ratio of students to teacher), demographics (race, special education students and poverty) and student mobility. This study found that none of these had statistically significant correlations to fidelity measures within secondary schools. Leadership and organisational capacity were not tested despite these being highlighted as possible barriers to fidelity.

It was interesting to note that the authors did not state whether bullying rates within the schools had fallen as schools increased their fidelity levels and progressed through Tiers 1 to 3. The focus was on the goal of achieving fidelity, rather than the impact of PBIS on bullying within schools.

Check In Check Out and Support

Malloy, Bohanon, and Francoeur (2018) conducted a case study in a high school that was federally and state-funded to prevent drop out from school. The project combined the PBIS framework with another tiered, evidence-based, transition programme. Students participated in one of two Tier 2 interventions, an unspecified behavioural support plan or Check-in Check-out (CICO). Students involved in both Tier 2 interventions improved attendance and behavioural outcomes. For those on CICO the improvement was immediate and sustained over time. However, there are some elements that need to be considered:

- The school received additional funding to put the scheme into place.

- Staff involved spent a day a week training throughout the intervention process and had additional in-school support. Even with this additional support Malloy et al. (2018) felt that the impact on staff and staffing needed to be investigated further.
- The researcher's school did not have the capacity to serve every student who needed Tier 2 support.

Relevant questions that lead on from this research in term of barriers and enablers in a New Zealand context are: Is the intensity and quality of training sufficient in New Zealand to support implementation of Tier 2? Do staff and teams have sufficient time to implement Tier 2? Are MoE trainers given sufficient time to support schools implementing Tier 2 interventions?

New Zealand and PB4L Tier 2

Published research on PB4L within the New Zealand context is relatively rare. However, there is an emerging interest in the topic from researchers and the MoE has commissioned research on PB4L. The Prime Minister's Mental Health strategy has piloted Check in-Check out and this has been evaluated. The following section will explore PB4L within the New Zealand context with connections made to Tier 2 interventions.

Final report from the evaluation of PB4L School-Wide

Boyd and Felgate (2015) conducted a comprehensive mixed methods study of Positive Behaviour for Learning School-Wide (PB4L-SW) over three years. New Zealand primary, intermediate, and secondary schools were included and the research included both quantitative data such as ODRs, suspensions, and exclusions and qualitative data. Key benefits of PB4L-SW identified by this research included reduced stand-downs and exclusions. Schools also felt they provided safer school environments. Utilising the research of Boyd and Felgate (2015) it is likely

the following factors will have ramifications on the implementation of Tier 2 with fidelity in secondary schools.

- Due to their size and complexity secondary schools took longer to implement PB4L-SW. The authors defined a large school as above 400 students, which comprises the majority of secondary schools in New Zealand.
- Secondary principals were more likely to be distant from the PB4L team(s).
- Secondary schools had greater problems working collaboratively.
- Secondary schools experienced greater challenges with data collection and use. In addition, most schools struggled to collect and effectively use different types of data to determine the most appropriate higher tier interventions.
- There was inconsistent support from MoE School-Wide practitioners across regions; the inconsistency included fidelity of training, resourcing and practice.
- School-Wide practitioners felt support and resources that were specifically tailored for secondary schools training were required.
- Concern was expressed about the development of Tier 2. During the research period, schools were training for Tier 2 while the Tier 2 programme was still being written. So, MoE readiness for Tier 2 was a possible issue.

These are all factors that could be identified as barriers to implementing Tier 2 interventions with fidelity in secondary schools. This research also raises further concerns about cultural responsiveness. Boyd and Felgate (2015) noted that PB4L practices did not significantly change the amount of collaborative work with whānau. Only 31% of secondary/intermediate schools sought Māori community input and only 12% of schools sought Pasifika input. This

leads to the question; is cultural responsiveness being considered by New Zealand schools when implementing PB4L Tiers?

PB4L sustainability with New Zealand

Elder and Prochnow (2016) completed a quantitative study of New Zealand Tier 1 schools analysing factors that led to sustainability of PB4L. Based primarily on the work of McIntosh et al. (2009) and McIntosh et al. (2011) they predicted that the following factors would lead to sustainability in school;

- effectiveness; clarifying that effectiveness is interdependent with fidelity
- efficiency; defined as being realistic and within the normal demands of the school environment
- evidence-based practice
- able to fit within each school's context
- data should be used to modify school practice

Elder and Prochnow (2016) used SUBSIST⁸ as the key tool to collect data.

Elder and Prochnow (2016) found that school leadership was the most important determinant of stability of PB4L. A second key sustainability factor was that the team needed to be respected members of staff. Elder and Prochnow (2016) were interested to find respondents thought the level of communication as very important and that 'consistency' emerged as a new factor from the study.

⁸ The School-Wide Universal Behaviour Sustainability Index – School Teams (SUBSIST) was developed to “assess factors (of the context, implementation practices, and outcomes) that enhance or prevent sustainability of School-Wide” practices (McIntosh et al., 2011, p. 208). SUBSIST was designed for completion by PBIS experts, for example, Tier 1 team leaders or PBIS coaches.

The research of Elder and Prochnow (2016) does not seem to have a clear understanding of some of the components of PB4L for example, defining Tier 2 as targeting 5% of students who worked with in-school specialists such as RTLB. Moreover, this research identified consistency as a separate factor impacting sustainability when consistency is core to fidelity. Further, SUBSIST is designed for expert use (McIntosh et al., 2011). Elder and Prochnow (2016) adapted SUBSIST and surveyed staff in PB4L schools. Any number of staff within the school were able to respond but most were unlikely to have the specific knowledge required to complete SUBSIST. This is likely to be the reason that there were unexpected results in the study. The other issue is SUBSIST itself only includes ‘malleable variables’, that is factors that can be changed within the school (McIntosh et al., 2011). External factors that may influence sustainability like training, demographics and support are not considered. However, this study does provide voice from staff who are often directly involved in implementing Tier 2 interventions. Therefore, leadership and communication are likely to be essential to obtain committed staff participation for Tier 2. Further this research identified that staff may experience difficulty over-turning entrenched (and often punitive), discipline practices in schools, so this may provide a barrier to Tier 2.

Check and Connect pilot

Check and Connect is a Tier 2 intervention. As part of the Prime Minister’s Youth Mental Health strategy a modified version of the PBIS model Check and Connect was piloted and evaluated. MoE research had found that Check and Connect had a strong evidence-base but needed adaption to improve cultural enhancement. Therefore, Check and Connect that included evidence-based practice for mentoring and engaging Māori students was the intervention piloted. Schools did not implement and run the Check and Connect trial; rather the Ministry of Social

Development contracted non-government organisations to provide the Check and Connect programme. Schools nominated students, and mentors from outside the school then worked with students. Wylie and Felgate (2016) evaluated the Check and Connect trials held within New Zealand. Part of the scope was to act as a ‘critical friend’. Extensive qualitative and quantitative data was presented but the authors clearly indicated there were issues with missing baseline data, inconsistencies in the way data was recorded in schools, and with budgets. So, the evaluation was redesigned.

Mentors who had previously worked with young people were extensively trained prior to the intervention. Sixteen mentors were employed full time as Check and Connect mentors (and a seventeenth mentor was part time). The median number of students each mentor worked with 11.5 students. Mentors worked with students for between eighteen months and two years. Check and Connect did result in positive gains for most students, although in some areas those gains seemed minimal for the significant resource invested.

Effective resourcing was a key problem in the Check and Connect pilot. At a basic school level, resource availability within schools created issues for mentors; for example, finding space for meetings. Further, schools did not always give mentors timely access to attendance, academic, and behavioural data. One secondary school’s physical distance from the pilot centre created problems. Extrapolating this, what might Check and Connect look like in rural areas where there is limited access to external support?

Core to fidelity at Tier 2 is the use of data, Tier 2 interventions require data completion and paperwork to monitor and evaluate the intervention. In the Check and Connect pilot mentors became very frustrated with the time commitment of the ongoing paperwork and data submissions. Moreover, the MoE had committed to developing a straight-forward way for

mentors to enter data and but that system was not ready at the start of the pilot. Instead laborious materials were provided that were difficult to decipher. In addition, a key member of staff at the MoE left and data supplied by mentors was not used. This leads to further resourcing questions? Have data tools been developed to efficiently support any further implementation of Check and Connect? How are the MoE planning to cater for staff turnover in key roles?

Finally, a comment made in the study was “parents and whānau were very distrustful of anything on paper” (Wylie & Felgate, 2016, p. 7). When PB4L Tier 2 can be data and document heavy, does the heavy data-based information create a barrier for parents?

Given the criteria outlined in the introduction for how Tier 2 interventions should be resourced and the type of students that should be targeted, it must be asked does the Check and Connect intervention presented in the research of Wylie and Felgate (2016) meet the criteria for Tier 2 interventions? The intervention involved intense one on one support with students, some with complex issues which were outside Tier 2. Further; given the resource commitment (one full time worker for 11.5 students) for two years is this realistic for a school to resource? If not, how can Check and Connect continue to be resourced externally? If Check and Connect is not particularly culturally responsive and needed to be adapted for this pilot how are these adaptations being shared with schools? Further, what other Tier 2 interventions need to be adapted to also be culturally responsive?

Other Tier 2 interventions in New Zealand

Finally, although not specific to PB4L schools, schools do have the equivalent of Tier 2 interventions in place in secondary schools. Wylie and Bonne (2016) identify approaches that were partially or well embedded in the majority of secondary schools were mentoring and providing emotional skills programmes to build resilience and self-esteem for small groups of

students. These authors also identify that Kaupapa Māori programmes as being less well embedded. So, there are alternate Tier 2 interventions available. Would these be considered evidence-based? Do these fit into the Tier 2 structure? Are they easily accessible by schools?

Conclusion

The literature review has identified a series of possible barriers and enablers from across a wide range of literature. The review has also raised a number of questions in regard to Tier 2. This literature review has relied heavily on PBIS research from the United States due to the limited availability of New Zealand based research. Despite a wide PBIS research base in the United States, research within a secondary school context or with a Tier 2 focus remains scarce. There is a significant gap in the literature in regard to PB4L Tier 2 in secondary schools not just within a New Zealand context but also within international literature.

The dependence on PBIS literature is a limitation of the literature review as the political environment and structural composition of schools in the United States is different to those in New Zealand. Therefore, some barriers and enablers identified may not translate across to a New Zealand environment. Equally Tier 2 interventions may not simply translate across the environments as indicated by the Check and Connect pilot.

The core research question is “what are the barriers and enablers for school leaders in implementing Tier 2 PB4L initiatives with fidelity in New Zealand secondary schools?” However, the literature review illuminates further questions that are important to this research. How does the Ministry of Education provide enablers and barriers to school leaders in implementing PB4L Tier 2 with fidelity? What are the within school factors that provide enablers and barriers to school leaders in implementing PB4L Tier 2 with fidelity? Is cultural

responsiveness considered when schools are implementing Tier 2 interventions? To what extent are Tier 2 interventions being implemented with fidelity in New Zealand secondary schools?

Methodology

As outlined in the literature review there is a significant gap in the research base surrounding the key elements of the research question; what are the barriers and enablers for school leaders in implementing Tier 2 Positive Behaviour for Learning (PB4L) initiatives with fidelity in New Zealand secondary schools? At the conclusion of the previous chapter four questions were derived from examining the themes within the literature.

How does the Ministry of Education provide enablers and barriers to school leaders in implementing PB4L Tier 2 with fidelity?

What are the within school factors that provide enablers and barriers to school leaders in implementing PB4L Tier 2 with fidelity?

Is cultural responsiveness considered when schools are implementing Tier 2 interventions?

To what extent are Tier 2 interventions being implemented with fidelity in New Zealand secondary schools?

There are a number of methodological approaches that can be used to answer the questions posed in this study. This chapter outlines the design and methods used.

Epistemology

Epistemology refers to the “relationship between the researcher and what is being researched” (Creswell & Plano Clark, 2017, p. 38). A researcher must ask how much distance there is between the researcher and the research. If the researcher distances themselves it leads to an impartial approach and objective data collection. If the researcher immerses themselves in the research subject it leads to on-site collection of data and intense interaction with participants. Choosing the epistemology and paradigm to research *the barriers and enablers for implementing*

Tier 2 with fidelity was difficult. Important factors needed to be considered before the decision was made.

The researcher

I have been a secondary teacher and involved in the pastoral care of students through the role of dean or senior leader in New Zealand schools for the last 20 years. I am currently a senior leader in a school that is not a PB4L school, but I have previously been involved in Tier 1 and Tier 2 teams in a school that was an early adopter of PB4L. In my role as a Tier 2 team member and on the pastoral team I was actively involved in designing and trialling Tier 2 interventions with ‘fidelity’. Some of the interventions with specific students were successful, most were not. Given the research evidence provided at Tier 2 training in regard to improved outcomes. I wanted to know how secondary schools within New Zealand managed to implement Tier 2 interventions successfully and with fidelity. The purpose of this research was to find practical workable solutions to implementing Tier 2 with fidelity.

The problem with the positive behaviour paradigm

A paradigm is “a way of looking at the world. It is composed of certain philosophical assumptions that guide and direct thinking and action” (Mertens, 2014, p. 8). Any researcher must be mindful of the contours of one’s own philosophical assumptions and mental models to ensure their assumptions on how the world is ordered is examined (Greene & Hall, 2010; Hatch, 2002).

In the literature review, the research is dominated by comparative studies of Office Discipline Referrals (ODRs), correlation of School-Wide Evaluation Tool (SET) results to factors such as socio-economic status, school population, staff turnover and suspension rates pre and post Positive Behaviour adoption. A key reason for this is that Positive Behaviour in its

various guises is rooted in United States research in the environment of the *No Child Left Behind Act 2002*. This legislation endorses research closely aligned with the post-positivist paradigm (Mertens, 2014). Post-positivism emphasises that “reality is only imperfectly apprehendable and therefore, predictable only in terms of probability” (Allison & Pomeroy, 2000, p. 94). Post-positivism relies heavily on quantitative measurement, hence the Positive Behaviour emphasis on ODR reduction, SET results and Tiered Fidelity Inventory (TFI) results. Using a post-positivist paradigm within this study would be logical given the history of PB4L and the tools that are already available.

Conversely; research is infused with social meaning and values even in the attempt to be totally rational (Feinberg, 2012). Focusing on ODRs, SET and TFI results is an oversimplification of the experiences that exist within school and also conceals moral judgement, by concealing judgements as measures (Feinberg, 2012; Mertens, 2014). For example, within PB4L the completion of an ODR is based on teacher judgement and will include teacher bias (Girvan et al., 2017).

Given the strong post-positivist background and data emphasis of PB4L it is important that the ‘baby is not thrown out with the bath water’. These post-positivist framed studies provide the bulk of PBIS literature. It would be fool-hardy to ignore that Positive Behaviour is a data-focused system. Therefore, using aspects of the data in New Zealand based research is important. The quantitative focus provides a tool to help understand the research question, however, it is important to connect the data to the lived experiences of those within it. The difficulty is these two ways of constructing knowledge fit within two very different paradigms.

The solution

The solution to the epistemological problem of matching two very different ways of constructing knowledge, is through the use of a pragmatic paradigm. Pragmatism is a suitable solution for several reasons. In this case, the purpose of this research was to provide a workable solution to the problem, how do secondary schools implement Tier 2 with fidelity? What works within schools? What are the barriers? Pragmatism is based on Dewey's work, focusing on workability, searching for useful points of connection, lines of action, and warranted assertability (Johnson & Onwuegbuzie, 2004; Mertens, 2014; Morgan, 2007). It is a paradigm that is focused on solving problems and finding practical solutions. Further, the values the researcher brings to the problem are important in a pragmatic paradigm.

Pragmatism also offers a practical solution to the tensions created by the post-positivist scientific approach and wanting to dig deeper into the lived experiences of people. The incommensurabilities between paradigms are reconcilable via pragmatism (Greene, 2008; Johnson & Onwuegbuzie, 2004). It is a sensible middle ground that allows the contrasting paradigms to 'talk to each other' to solve a problem, in this case, it will enable the data from both approaches to be pulled apart in a more meaningful way (Mertens, 2014). So, within pragmatism the quantitative measurement focus of PB4L research and the lived experiences of those working within PB4L Tier 2 have equal status because they together may help find a practical solution to the implementation of PB4L Tier 2 interventions with fidelity.

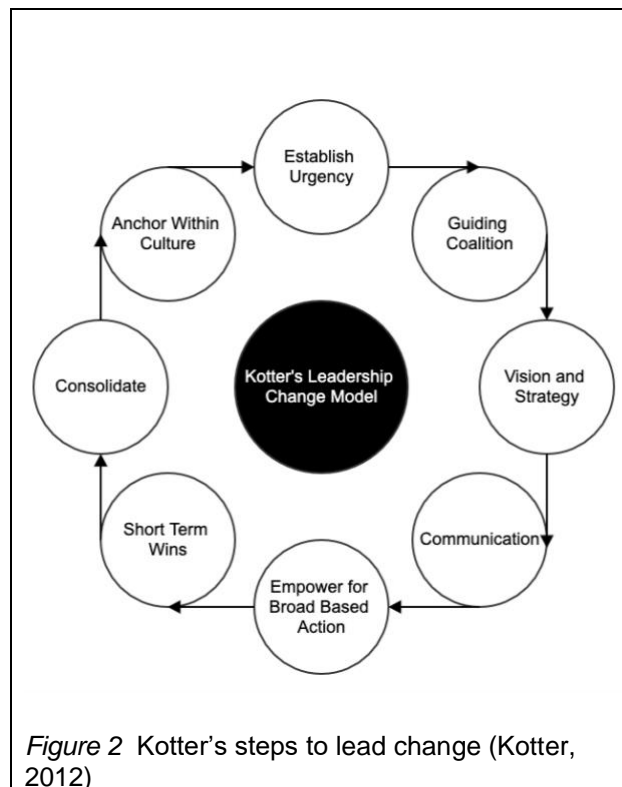
Theoretical Basis

The implementation of PB4L Tier 2 within schools requires change so therefore operates within change theory. Therefore, this research is grounded in the ideas expressed in Kotter's Theory of Change Leadership (Kotter, 2012). Kotter's Theory of Change Leadership model has

frequently been used in education research to guide and evaluate change within schools (Eklund, Griffiths, & Newton, 2017; Thornton, Usinger, & Sanchez, 2019). Kotter assumes that organisational change needs to be carefully planned and presents an eight-step model outlined as follows (and summarised in Figure 2).

- Establishing urgency; move staff from a point of complacency to urgency (Smyth, 1996). This is often achieved by using stakeholder feedback.
- Develop a guiding coalition: create a team to drive change that is credible, has positional power, and expertise (Caldwell & Spinks, 2005; Day, 2011; McIntosh, Horner, et al., 2009).
- Establish the vision and the strategy; make the change coherent and provide compelling reasons for making it (Murphy et al., 2001; Timperley, Wilson, Barrar, & Fung, 2007).
- Communicate effectively; ensure two-way open communication where discussion is open; use multiple forums and repeatedly communicate. The behaviour of key players is highly impactful (McIntosh, Campbell, Carter, & Rossetto Dickey, 2009).
- Empower employees for broad based action; provide needed training, align systems to the change, proactively deal with troublesome supervisors, remove school structural barriers.
- Generate short term wins; actively plan projects within the overall mission that can be accomplished in a short period. Track the project via data, share the success, building momentum (McIntosh, Horner, et al., 2009).

- Consolidate the change: the senior leadership team must maintain focus, clarity, and maintain urgency. Remaining vigilant is imperative as this is where patient ‘under miners’ of change will appear.
- Anchor in culture: make sure new practices grow deep roots, the change should become the norm within the school. Monitor key leaders who have driven the change to support and maintain their energy. Further new staff appointments should align with the changed focus.



It is important to note that that Kotter’s steps are not linear, rather schools will move backwards and forwards between steps as needed, however, each move on the model should be planned.

Mixed Methods

As already discussed the paradigm selected for this research was pragmatism. Within a pragmatic paradigm the methodology that offers the best chance of useful answers is selected (Greene, 2008; Johnson & Onwuegbuzie, 2004). Creswell & Plano Clark define the key components of mixed methods as a system where the researcher;

“collects and analyses both qualitative and quantitative data rigorously in response to research questions and hypotheses. Integrates the two forms of data and their results. Organises these procedures into specific research designs that provide logic and procedures for conducting the study and frames these procedures within theory and history”. (2017, p. 5)

Mixed methods are used where quantitative or qualitative data by itself are not going to be sufficient. (Creswell & Plano Clark, 2017). Solely analysing the Tier 2 implementation experiences in a few schools using qualitative methods, will limit the ability to generalise to many schools. Likewise using quantitative data alone will miss the depth knowledge and experience, of individuals within the school. The quantitative data provides information on Tier 2 implementation and fidelity measures, the type of Tier 2 interventions and possible barriers, and enablers, whereas the qualitative phase brings context and experience to that data. Using mixed methods will generate a more accurate picture by combining information from complimentary sources, providing important insights or understandings that would not have been achieved by using quantitative or qualitative research alone (Greene, 2008; Mertens, 2014).

The mixed method being used is based on Creswell’s Explanatory Sequential Design (Creswell & Plano Clark, 2017) and is outlined in Table 1. The study is an explanatory sequential study as the quantitative phase was completed first, very limited qualitative

information was also collected as there was room for respondents to make comment at the end of each section in the survey (Denscombe, 2008). Analysis from the Phase I was completed separately and then informed the selection of interview questions and themes in the qualitative stage. The purpose of the Phase II (qualitative stage) was to explore key findings from the quantitative stage. Phase I and Phase II had equal status, no one method is dominant over the other. Using two phases of research allowed greater depth and breadth of information analysis. Therefore, mixed methods offered a practical solution by providing a middle ground that was appropriate within this research.

Legitimizing data

In order for mixed methods research to be seen as valid and dependable, Johnson and Onwuegbuzie (2004) discuss the process of legitimizing data. Within this research using both quantitative and qualitative data allowed findings to be triangulated across both the quantitative survey and through the qualitative component (the interview, coding, and evaluation), so there could be greater confidence in the results (Denscombe, 2008). A mixed methods approach was likely to obtain more valid conclusions about Tier 2 implementation with fidelity, by directly comparing the results from the quantitative to qualitative phases for divergence and convergence (Plano Clark & Ivankova, 2015).

Further, the quantitative and qualitative approach provided “complementarity” (Johnson & Onwuegbuzie, 2004). The two methods elaborated and clarified each other and provided a dual approach that could discover patterns and uncover the best set of explanations making conclusions more meaningful (Johnson & Onwuegbuzie, 2004; Punch & Oancea, 2014). Moreover, the two sets of data allowed discrepancies (paradoxes) to be found that led to further analysis (Plano Clark & Ivankova, 2015). The qualitative section of this research deliberately

sought schools with different experiences with the goal of finding those paradoxes and discrepancies for analysis.

When properly planned mixed methods reduce the impact of bias as a range of tools are utilised to ensure that an issue is not explored through one lens. Multiple methods ensure sufficient data is collected to gain a whole view (Baxter & Jack, 2008; Punch & Oancea, 2014).

Table 1*Explanatory Sequential Design: Outline of Mixed Methods Design for Research*

Phase	Procedure	Product
Quantitative Data Collection QUAN + qual	<ul style="list-style-type: none"> Population N = 74 Voluntary response On-line questionnaire 	<ul style="list-style-type: none"> Population = 69 Numeric data Some qualitative data for additional explanation of numeric data
Qualitative Data Analysis	<ul style="list-style-type: none"> Analysis of collected questionnaire data and publicly available data SPSS 	<ul style="list-style-type: none"> Descriptive statistics – correlation analysis, interventions, enablers and barriers Key data analysed to generate interview questions for Phase II
Case Selection: Interview Protocol Development	<ul style="list-style-type: none"> Pilot Purposive sampling participants (N = 4 schools) based on voluntary response and maximum variation. 	<ul style="list-style-type: none"> Schools (N = 3) Interview Protocol
Qualitative Data Collection QUAL	<ul style="list-style-type: none"> Individual in-depth interviews with Tier 2 leaders in each school. 	<ul style="list-style-type: none"> Text data (interview transcripts, documents)
Qualitative Data Analysis	<ul style="list-style-type: none"> Coding and thematic analysis Within interviews and across-interview theme development Cross-thematic analysis 	<ul style="list-style-type: none"> Codes and themes Similar and different themes and categories
Integration of Qualitative and Quantitative Results	<ul style="list-style-type: none"> Interpretative and explanation of the qualitative and quantitative results 	<ul style="list-style-type: none"> Discussion Implications Future Research

(Creswell & Plano Clark, 2017, p. 85)

Method

Phase I: Quantitative research

In order to obtain appropriate information to answer the research questions, the quantitative data needed to:

- Obtain basic PB4L information about the schools, for example, the amount of time involved with Tier 2.
- Determine the level of fidelity of PB4L Tier 2 within New Zealand secondary schools. Fidelity could then be used as the dependent variable in correlations against demographics such as school size to identify (or disqualify) further barriers and enablers.
- Identify what Tier 2 interventions are used in school and to what extent.
- Identify whether schools consider cultural responsiveness when choosing Tier 2 interventions.
- Identify key barriers and enablers to PB4L Tier 2 interventions within the New Zealand context.

An online questionnaire was the most appropriate method to collect the data. This method has significant advantages because there is rapid turnaround and it is relatively straightforward to collate data (Creswell, 2010). Online surveys are also an economical way to collect data in terms of financial cost and time for the respondent. Qualtrics was the survey tool used as specified by Massey University.

The survey tool

The survey (outlined in Appendix A) was self-developed but utilised the work of Elder and Prochnow (2016) and Debnam, Pas, and Bradshaw (2012) to help design question responses. Where respondents were asked to identify what Tier 2 interventions were used in school and to what extent, the work of Debnam et al. (2012) was used as a basis to structure the questions. This section gives responders the opportunity to identify which interventions they used, the extent to which they used them, and how easy they found that intervention to resource within the school. These questions also aided in measuring the fidelity and efficiency of the intervention (which also provided links to barriers and enablers for implementation of Tier 2 with fidelity).

Four significant factors likely to provide barriers or enablers emerged from the literature review and these were specifically addressed under key headings; Ministry of Education (MoE) support and training, the ability to access and use data, leadership and resourcing, and staff training and support. Most questions used a Likert scale response similar to the scale that Elder and Prochnow (2016) used when analysing the sustainability of PB4L in a New Zealand context, 1 = not at all, 2 = somewhat, 3 = mostly and 4 = completely, an option for 'not sure' was also provided.

Additional questions itemising barriers and enablers were created, themes were taken from literature. Respondents were asked to select the eight biggest barriers and the eight most significant enablers of Tier 2. Because barriers and enablers are often 'two sides of the same coin' (a principal with commitment may be a strong enabler to Tier 2 and a principal who is indifferent to Tier 2 may provide a strong barrier), the lists prepared for each question were

similar. Respondents were also asked to select their most significant barrier and their most significant enabler.

As discussed in both the introduction and the literature review fidelity is a core concept of PB4L at any Tier. Fidelity is a measurable, concrete calculation rather than an abstract concept. Methods to specifically measure the fidelity of Tier 2 are limited. PB4L-SW assessment tools often look at two or more Positive Behaviour tiers as a unified construct, research on Tier 2 alone is reasonably unique. Up until recently it was recommended that New Zealand schools use the Benchmarks of Advanced Tiers (BAT) to assess fidelity across Tiers 2 and 3. The TFI (Tiered Fidelity Inventory) is a more valid measure of the Tiers (including Tier 2 individually) (Massar et al., 2019; McIntosh et al., 2017) and has just been piloted New Zealand. Most schools that responded to the survey were not part of that pilot. To obtain school fidelity measures, two questions were added to the questionnaire. Respondents were asked for the school's most recent SET score (providing a fidelity score at Tier 1), and also the most recent BAT score. For both questions' respondents were given the opportunity to respond in 20% bands (0-20%, 21-40% ...). Almost all schools responded with a SET score, though only five schools responded with a BAT score. Most schools responded that they were 'unsure' or 'had not used a BAT'. The BAT is only a recommended measure (unlike the SET which is a component of regular Tier 1 checks) so schools may not have had a measure of Tier 2 fidelity.

This presented an unanticipated problem, as stated previously in order to discuss fidelity and possible barriers and enablers it is also important to have a measure of it. Therefore, a simple Tier 2 fidelity calculation was developed using questionnaire responses to provide a relatively straightforward indicator of fidelity. The fidelity calculation (outlined in Appendix C) was created using questions from the survey that most closely aligned with the thirteen Tier 2 items

within the TFI and used a four-point rating scale (0, Not at all; 1, Somewhat; 2, Mostly; 3, Completely). Ratings were taken from school responses to the relevant question. Where there was no equivalent question that aspect of the TFI was left out. Like the TFI and BAT the points accumulated were converted to a percentage to provide a measure the fidelity. One deliberate difference between the TFI and this fidelity calculation is that '*Students are identified and Tier 2 interventions are implemented in a timely way*' has been included in the measure as research indicates that this is a key component for fidelity (McIntosh, Campbell, Carter, & Rossetto Dickey, 2009; McIntosh, Horner, et al., 2009).

Survey sampling

In order to obtain the Tier 2 population for this research, a list of all schools involved in PB4L-SW Tier 2 was requested from the MoE. The list was crossed checked against the online *Education Counts School Directory* excluding schools who were not secondary schools Year 7 to 13 or Years 9 to 13. This produced a list of 83 secondary schools who had been identified as Tier 2 secondary schools. Using the online *Education Counts Find a School* tool and individual school websites, the names of school principals and their email addresses were obtained. Where there was no direct email address for the principal the school's general contact email was used.

The list of schools and principals was then sorted according to MoE region. A courtesy email was sent to the regional PB4L managers to notify them of the research and the intention to approach PB4L schools. The email included an introduction and general description of the research and an explanation of where the list of schools was sourced. Most regional PB4L managers adjusted the supplied lists of schools. Schools were taken off the list if they had not completed or had deferred the introductory training for PB4L Tier 2, there was a new principal who had requested a 'breather', or if they had not been or were no longer PB4L schools.

Some Regional Managers added schools to the list who were Tier 2 PB4L secondary schools but were not on the original list supplied. This additional step aided in reducing coverage error (Mertens, 2014), that is, schools who should have been in the sampling frame were added and schools that are ineligible were removed. A final list of 73 secondary schools was compiled.

The questionnaire was sent out to all PB4L Tier 2 secondary schools early in Term 3 via a personally addressed email to each school principal (Appendix C). The email contained an invitation explaining the questionnaire's purpose and a direct link to the survey. An information sheet (Appendix D) was also attached to the email to provide further details about the research and confidentiality.

The questionnaire could be completed by the principal themselves or the principal could forward the email to the Tier 2 team leader for completion. Schools could choose to complete the questionnaire anonymously and all questions were optional. The survey was left open for four weeks. Completion of the survey was taken as consent to participate.

A key concern was the anticipated level of response to the survey. Response rates would depend on time, interest and perceived benefit to self (Mertens, 2014). Principals are very aware of balancing competing demands on their staff so they needed to see a benefit to the research. As part of the email the researcher offered to share the findings of the research when it was completed.

Quantitative analysis

A descriptive analysis using SPSS software on the fidelity measures was conducted. This included a correlational analysis to examine the impact that school contextual factors (such as student numbers, and decile ratings) have on fidelity. Correlational analysis using data from the survey also examines the impact of leadership, aspects of MoE support, and staff knowledge and

training on fidelity. (Refer to Quantitative section in the Results chapter for a description of the correlational analysis completed.) Further statistical analysis to identify patterns, discrepancies, and emerging themes was also completed. The quantitative results were then used as a basis to develop the Phase II interview questions and to select the schools for interview.

Phase II - Qualitative Research

At the conclusion of the questionnaire respondents were given the opportunity to participate in Phase II of the research by way of providing contact details if they wished to volunteer. Respondents from five schools volunteered to participate in Phase II interviews. The purpose of the qualitative research was to obtain a more detailed understanding, and explanation, of the concepts of fidelity and the barriers and enablers within secondary schools.

Sampling

Sample size was dependent on schools who volunteered for research, and the respondents selected could not be determined until the quantitative research was analysed in sufficient depth to ensure a wide range of experiences were included. Five schools volunteered to participate. Purposeful sampling strategies were used to select the schools from the pool of volunteers. Schools were deliberately selected by the researcher to ensure that a diverse range of PB4L Tier 2 experiences were represented (maximal variation) (Creswell, 2010; Creswell & Plano Clark, 2017; Johnson & Onwuegbuzie, 2004). Schools were selected to document both positive and negative experiences, and to identify common themes. (Punch & Oancea, 2014). Three schools of the schools had very different questionnaire results and demographics relative to the other two, so were selected. The remaining two schools were very similar both in questionnaire responses and demographics, therefore the school that had been involved with PB4L Tier 2 the longest was selected from the two.

Interviews

Information was collected via a single, semi-structured interview, with the Tier 2 team leader(s) from each school. Interviews allow a rapport to develop which is likely to produce greater depth of data, eliciting a more open response (Brown & Danaher, 2019). A semi-structured interview allowed the researcher to be more flexible, prompt further discussion, and respond to ideas as they emerged. The interviews were guided by a set of questions (outlined in Appendix E) that allowed flexibility, with the goal of producing rich explanatory data (Punch & Oancea, 2014). The interview questions were grounded in the results from Phase I to obtain further explanation of key results from the quantitative analysis. A pilot interview with a Tier 2 team leader in a local school was conducted prior to the formal interview. The pilot interview responses provided a rich, in-depth perspective of the barriers and enablers of Tier 2 implementation within the schools. No modifications were made to the interview questions following the pilot interview, however, adjustments were made to interview technique to ensure the respondent had the time to talk through their school context without interruption.

Information sheets and a consent form were sent to each participant prior to the interview (Appendix F), and consent processes were discussed with the interviewee at the start of the interview. One interview was completed face-to-face, one via skype and one via phone. The interviewee chose their preferred means of communication. There were initially some concerns about utilising skype and phone interviews (beyond the added concern of technical issues). There was concern in terms of losing rapport with the person being interviewed. However, loss of rapport was offset by issues of spatiality and being comfortable in an 'uninvaded' space (Hanna, 2012). It was also much more convenient for the interviewees to organise the interview via skype or phone than it was for the researcher to visit the school. The convenience

of phone or skype interviews also allowed Tier 2 leaders some flexibility to deal with emergencies and incidents at their schools when they arose. When this was the case the interview was simply rescheduled.

Interviews took between thirty minutes to one hour to complete. The interviews were digitally recorded. Only the researcher conducted the interviews ensuring consistency across schools and interviews (Mertens, 2014). The transcripts were transcribed verbatim, then returned to the interviewee via email to check for accuracy. Interviewees signed a transcript release (Appendix G) that was returned to the researcher.

Qualitative analysis

The interview transcripts were coded by the researcher initially using key descriptive themes that had been featured in the quantitative data or in the literature review, for example 'leadership', 'staff', 'restorative practice', and 'MoE training'. Phrases were colour coded according to school and number coded according to theme and then sorted using a spreadsheet. However, the initial themes were not sufficient and emerging themes were added and other themes were collapsed; for example, 'Check In-Check Out' became a separate heading to 'interventions', 'staff' was dropped as a code and this was placed into a new combined heading of 'sustainability'. Once again strong new themes emerged such as 'reality of intervention', 'team composition', and 'pastoral care' that were very different to the original descriptive coding (Punch & Oancea, 2014).

Ethics

Paying careful attention to ethics is an essential component of the research process to ensure that at any potential harm to participants in the research process is minimised. This study followed the Massey University Code of Ethical Conduct for Research, Teaching, and

Evaluations Involving Human Participants (Massey University, 2017). After discussion with supervisors this research was judged to be 'low risk' after assessing against the Human Ethics Risk Assessment (Massey University, 2017). Notification of the low risk assessment was submitted to the Massey University Human Ethics Committee (Ethics Notification Number: 4000021273). However, in order to maintain low risk status special attention had to be paid to ethical principles of research.

Autonomy

The researcher needed to ensure that participants were provided with appropriate information to allow them to make an unpressured decision about participating in the research. This occurred by way of information sheets to school principals, Tier 2 leaders and interview respondents.

Confidentiality needed to be carefully considered as part of autonomy. The number of secondary schools that are involved at Tier 2 is New Zealand small and connected and therefore this presents the possibility of confidentiality issues (Damianakis & Woodford, 2012). A combination of simple school demographics could identify a responding school to the rest of the PB4L Tier 2 community, so great care was taken to avoid this. Any quantitative data analysis completed and discussed related to the whole data set. Within the second phase of this research, coding and themes were used to minimise identification. Some quotes were generalised where they might lead to identification of a school. Schools were also assigned pseudonyms such as 'School B' in Phase I and 'School Whero' in Phase II.

This research aimed to look at leadership and fidelity aspects of Tier 2 PB4L. However, Tier 2 interventions are, by nature, interventions for students. Therefore, when interviewing Tier 2 leaders there was the potential for situations to arise where a student may be discussed or

identified. If any student was specifically mentioned within an interview the student's name and any identifying information was removed from the transcript.

Avoidance of harm vs beneficence

The MoE has made a significant financial commitment to the PB4L programme (Barback, 2013). Research identifies both the academic and behavioural benefits for students (Bradshaw, Mitchell, & Leaf, 2010; Sugai & Horner, 2006). There is the possibility that this research finds the barriers to implementing Tier 2 are substantial. This may cause schools to pull out of Tier 2 and subsequently put it in the 'too hard basket'. Such an outcome could be harmful for students. It would also harm the MoE's ability to champion PB4L. However, implementing interventions that let students down equally could cause damage, so this research could spark debate and critical examination of PB4L Tier 2 in the New Zealand secondary context, which in itself is beneficial (Bridges, Smeyers, & Smith, 2009). The research may identify simple commonalities for resourcing Tier 2 that have a New Zealand context base which may mean more schools benefit. For schools, identification of enablers early and the provision of information to overcome barriers could save schools significant resource cost.

Special relationships

The researcher holds strong connections with two Tier 2 secondary schools where a personal relationship is held with the principal. "These relationships can generate ethical obligations and permissions that would not exist otherwise" (Massey University, 2017). To reduce perceived bias these two schools were ruled out of participating in Phase II of the research because of these relationships.

Results

Quantitative Results

As outlined in the methodology chapter, following Ministry of Education (MoE) input at both national and regional level, 74 schools were identified as being PB4L Tier 2 schools. Emails were sent to the principals of these schools, inviting them to complete the survey. In 5 cases, principals responded via email that they were not Positive Behaviour for Learning (PB4L) Tier 2 schools. This took the total number of available PB4L Tier 2 secondary schools to N = 69. The survey was completed by respondents representing 15 Tier 2 secondary schools, 21.74% of the eligible 69 schools.

Table 2

Decile and School Roll Data Respondents to Survey Versus All Tier 2 PB4L Schools

	Decile		School Roll (number of students)	
	All Tier 2 Schools	Responding Schools	All Tier 2 Schools	Responding Schools
Mean	4.83	5.47	761.09	776.67
Median	5.00	6.00	577.00	567.00
Std. Deviation	2.60	2.37	569.17	491.91
Range	9.00	8.00	2959.00	1776.00

Only one school chose to remain anonymous in the survey, allowing publicly available school demographic data to be added to survey results. Respondents to the questionnaire represented a wide range of schools, as illustrated in Table 2. Schools from eight of the ten MoE regions responded to the survey. The overall response covered a range of 8 deciles, a significant range of school rolls, and had diverse ethnic compositions as seen in Table 3. A number of schools

responding were in the decile 5-7 band, this lifted the mean and median somewhat as compared to the data of all Tier 2 secondary schools. Schools had a mean of 2.8 years involvement with the PB4L Tier 2 programme; therefore, a number of schools responding had significant experience. Respondents represented a wide ranging, and fairly representative sample of Tier 2 secondary schools in New Zealand.

Table 3

Questionnaire Responses – Ethnicity of School Roll

	European	Māori	Pacific	Asian	MELAA	Other
Range	76.22%	47.71%	77.14%	13.54%	3.90%	3.09%
Mean	56.28%	24.03%	8.34%	5.35%	1.76%	0.91%

Note: Ethnicity categories as per Education Counts (Ministry of Education, 2014)
MELAA ethnicity category includes Middle Eastern, Latin, American, and African.

The developed fidelity measure, outlined in the methodology (and Appendix B) was calculated based on school responses to specific questions within the questionnaire. This allowed comment on the core requirement of fidelity, as only one of the respondent schools had participated in the TFI trial and only five schools provided their Benchmarks for Advanced Tiers (BAT) data. The fidelity measure produced a range of 75% and a mean of 48.21%.

As discussed in the literature review, there are a number of external factors that research has surmised may create barriers to establishing PB4L Tier 2 with fidelity. These include socio-economic status, ethnic make-up of the school, and the size of the school roll. Using Spearman's rho the fidelity measure was correlated against school population, ethnicity (European/Pākehā,

Māori and Pasifika), and decile rating. There was no statistically significant correlation between any of these factors and the fidelity score. This is similar to results found by Debnam, Pas and Bradshaw (2012), with the exception of socio-economic status (decile rating).

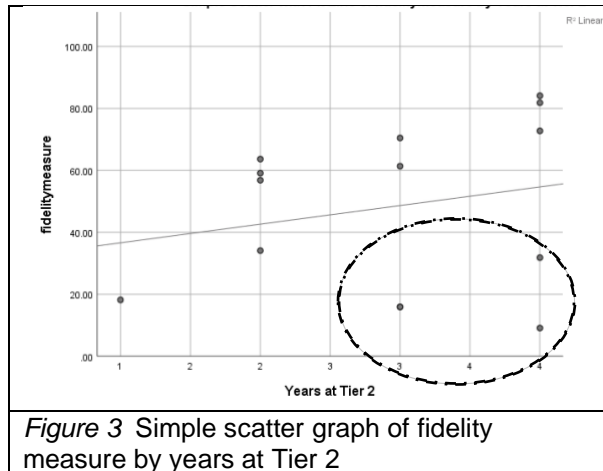


Figure 3 Simple scatter graph of fidelity measure by years at Tier 2

Literature suggested that there should be a correlation between time involved in Tier 2 and the fidelity measure (Flannery et al., 2014). However, analysis using Spearman's rho shows there is not a significant correlation. Using a scatter plot of the data (Figure 3) it is not difficult to see why there is a weak correlation, as three schools who have had long term involvement, had low fidelity results. These schools have experienced difficulty achieving or sustaining PB4L Tier 2.

Ministry of Education

Adequate external support is important to implementing Tier 2 with fidelity. Debnam, Pas, and Bradshaw (2012) found schools with limited support were more likely to experience low fidelity ratings. Tier 2 training is conducted by the MoE and provides ongoing support in the form of School-Wide practioners. As illustrated by Table 4, schools indicated the

documentation and training outside of school was suitable in implementing Tier 2. In responding to the question, '*Ministry of Education documents (such as the PB4L-SW Tier 2 Manual) provide a clear pathway for establishing Tier 2 processes and interventions in a secondary school*'; 71% of schools said this was mostly or completely true, 78% of schools gave a similar rating to the training provided. MoE documentation and training was largely seen as useful in the establishment of PB4L Tier 2 interventions.

In contrast, 43% of respondents indicated that in terms of understanding the secondary context, the MoE were rated at 'not at all' or 'somewhat'. In addition, 14% of respondents were unsure about whether the MoE understood the secondary context. These unsure respondents were all long-term members of the Tier 2 PB4L community. This was unpacked further in Phase II of the research. When respondents were asked to rate whether the MoE provided ongoing and accessible support for Tier 2 implementation, the results were extremely varied. Further investigation into these results provide no obvious pattern, for example, respondents supported by the same MoE regional office had dichotomous views of the support provided with ratings of 'not at all' and 'completely' within the same region. Schools with similar fidelity ratings also rated the MoE at opposite ends of the support scale. Given the varied results it is unsurprising that there was no statistically significant correlation between any of the MoE factors, and the fidelity calculation in regard to Tier 2 interventions.

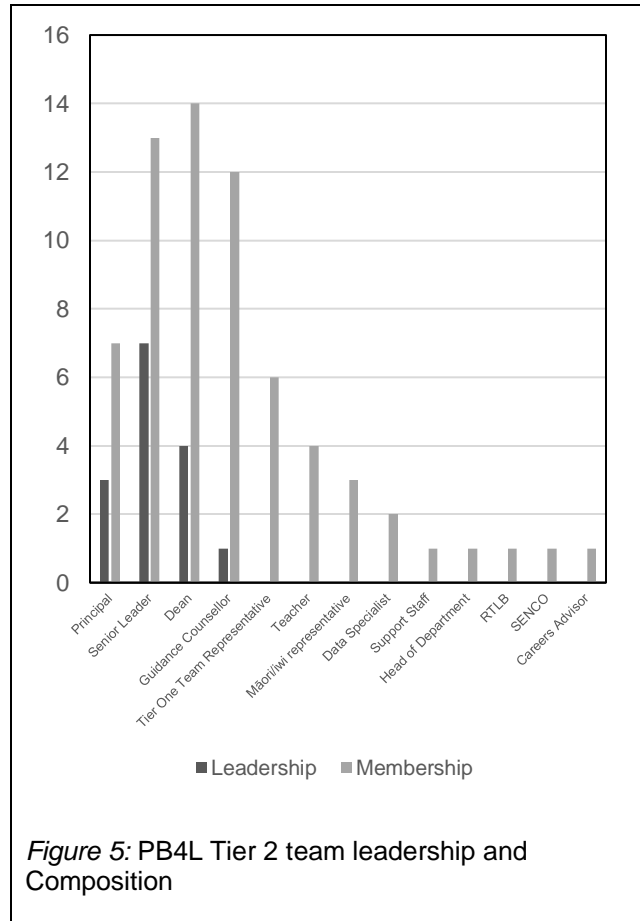
Table 4*School Responses to the Ministry of Education and PB4L Tier 2 Support*

Statement	Not at all	Somewhat	Mostly	Completely	Unsure
Ministry of Education documents (such as the PB4L-SW Tier 2 Manual) provide a clear pathway for establishing Tier 2 processes and interventions in a secondary school.	7%	21%	57%	14%	-
Ministry of Education provided Tier 2 training has been useful in establishing Tier 2 processes and interventions in my secondary school.	7%	14%	64%	14%	-
The Ministry of Education has provided ongoing and accessible support for Tier 2 implementation in my school.	14%	21%	36%	29%	-
The Ministry of Education understands what is unique to secondary schools implementing Tier 2.	7%	36%	21%	21%	14%

When respondents were asked; ‘Would you like to make any additional comments about the Ministry of Education and the implementation of PB4L Tier 2 in your school’ two key themes emerged from the responses. First, a perception of waning Ministry of Education commitment to the PB4L programme over time. Further, the view that the MoE provides strong professional development in regard to Tier 2 interventions but it does not seem grasp the practicalities within secondary schools.

Tier 2 team composition

Schools were asked to identify the role within the school held by the Tier 2 team leader, and the makeup of the team (N = 15). The results are represented in Figure 4.

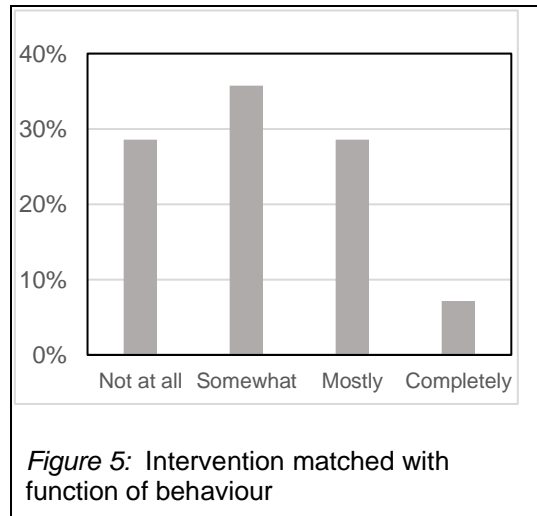


As illustrated by Figure 5, 50% of Tier 2 Teams were led by a member of the senior leadership team, such as a deputy or assistant principal, deans are also used regularly as leaders. Principals were members of PB4L Tier 2 teams in 50% of schools (this included three schools where the principal was the team leader).

Despite the recommendations by the PB4L Tier 2 Manual that the Tier 2 Team have a wide range of expertise and school knowledge, membership of Tier 2 teams for the majority of the responding schools was limited to senior leaders, deans and guidance counsellors. Less than

50% of the schools reported they had the required Tier 1 team representative. Only one school had support staff included in the team.

Data also showed that 50% of respondents reported some sort of dilution, adaption or synthesis with other school systems. This includes combining Tier 1 and 2 teams, continuing to operate as a traditional pastoral team that completes some 'Tier 2 functions' and moving to a well-being model. For 35.71% of respondents, having the required level of expertise at Tier 2 has been difficult to maintain; staff availability, time pressure, and turnover were all identified as key barriers by respondents.



Core to PB4L Tier 2 interventions, is the ability to assign interventions according to the function of the student's behaviour. Of the respondents, 26.67% reported not having a current member of their Tier 2 team with any training in functional behaviour analysis. Of note, 75% of those schools had been involved in PB4L for two or more years, so MoE training would have been provided to the school pointing to further possible issues with staff turnover. For those that had trained, this was limited to MoE training for all but one school. Figure 5 provides a clear illustration of this problem, with 28.57% of respondents reporting that they are not matching

interventions with behaviour at all, and an additional 35.71% rating themselves as ‘somewhat’ matching an intervention to the function of behaviour. Not having expertise in this area provides a key barrier for schools implementing Tier 2 with fidelity by definition, as implementing interventions according to function of behaviour is part of the Tier 2 fidelity measure (Algozzine et al., 2014).

Table 5

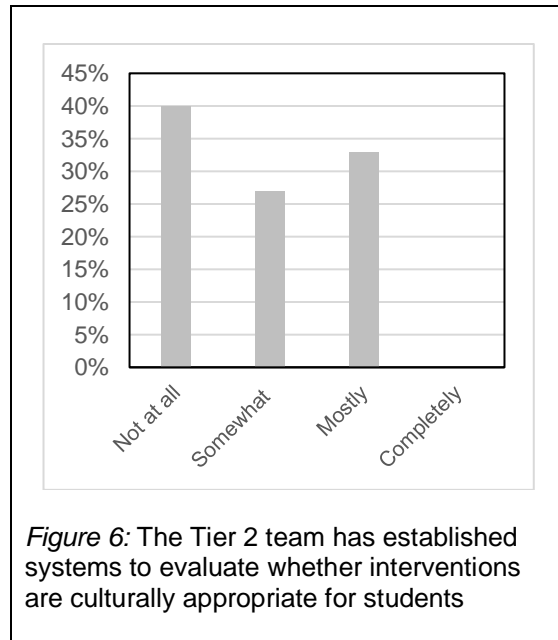
School Response to Tier 2 Data Requirements

Statement	Not at all	Somewhat	Mostly	Completely
A clear system for identifying students for Tier 2 interventions have been developed.	-	14%	64%	21%
A wide range of data is collected to identify Tier 2 students.	7%	-	43%	50%
Tier 2 data accessed in a straightforward and timely way	14%	-	64%	21%
Students are identified and Tier 2 interventions are implemented in a timely way.	27%	-	53%	20%
Systems to assess the effectiveness of interventions for Tier 2 students have been developed.	46%	23%	31%	-

As described in the introduction and literature review and methodology chapters, the use and collection of data is a requirement of fidelity. The figures in Table 5 provide a telling story in regard to data requirements. Respondents report consistently high levels of implementation with their data systems that relate to the initial systems for identifying students at Tier Two.

- A clear system to identify Tier 2 students have been developed (86% mostly or completely).
- A wide range of data is collected to identify Tier 2 students (93% mostly or completely).
- Students are identified and Tier 2 interventions are implemented in a timely way (86% mostly or completely).

This data indicates, systems required to identify students that require Tier 2 supports, are in place with almost all surveyed secondary schools. However, with the required systems to evaluate the interventions, the opposite is true. Data showed that 46.15% of schools have no system in place to evaluate effectiveness of the intervention. Of note, as illustrated by Figure 6 40% of schools are not evaluating cultural responsiveness of the student intervention at all. However, as illustrated further by Table 7 and 8, schools did not view cultural responsiveness (or lack of it) as an important barrier nor enabler to PB4L Tier 2 by schools. The responses related to data collection and evaluation are somewhat aligned to the results from Ministry of Education support section of this questionnaire. That is, strength generally exists with the establishment of systems. This may be due to initial strong MoE support and training when schools begin to implement Tier 2 processes. It seems to be the ongoing maintenance and evaluation of those systems in action where barriers for schools arise. This also aligns with the perception from some respondents of impractical or waning MoE support over time.



Senior leadership

Literature leads us to surmise that fragmentation of leadership is a possible hinderance to PB4L Tier 2 (Flannery et al., 2009). The assumption is that in a secondary school senior leadership is comprised of siloed portfolios, for example one senior leader may be responsible for curriculum, another responsible for pastoral care, and another responsible for professional development and appraisal, and they may work independently from each other in those roles undermining the overall cohesion of PB4L interventions (Nelson et al., 2002; Turri et al., 2016). Responses to statements in regard to senior leadership are included in Table 6.

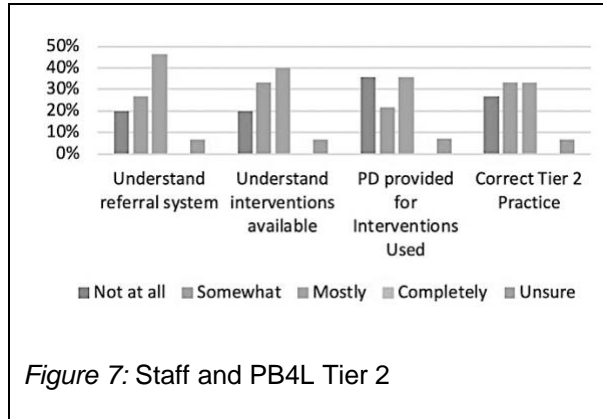
Table 6*School Responses to School Leadership and Tier 2 PB4L*

Statement	Not at all	Somewhat	Mostly	Completely	Unsure
The Principal understands and supports the use of interventions for Tier 2 students.	-	7%	27%	67%	-
Sufficient time and resources have been allocated to staff to implement Tier 2 interventions.	8%	23%	46%	23%	-
All of the Senior Leadership Team understand and support Tier 2 interventions.	13%	20%	33%	53%	7%
The Senior Leadership Team ensure initiatives introduced align with PB4L	20%	7%	53%	20%	-

Spearman’s rho was used to correlate responses about senior leadership against the Tier 2 fidelity calculation. (Numbers from the Likert Scale were allocated to responses within SPSS for example 1= not at all, 4 = completely). Three quarters of the correlations conducted were statistically significant including principal support ($r = .558, p < .05$), sufficient time and resources allocated ($r = .640, p < 0.05$), and Senior Leader initiatives align with PB4L ($r = .710, p < 0.01$). These results indicate that the more senior leaders align their work to PB4L the greater the likelihood of PB4L Tier 2 being implemented with fidelity. These results also indicate, that commitment from the principal, SLT aligning their work to PB4L, and commitment to resourcing, could be enablers to implementing Tier 2 interventions with fidelity.

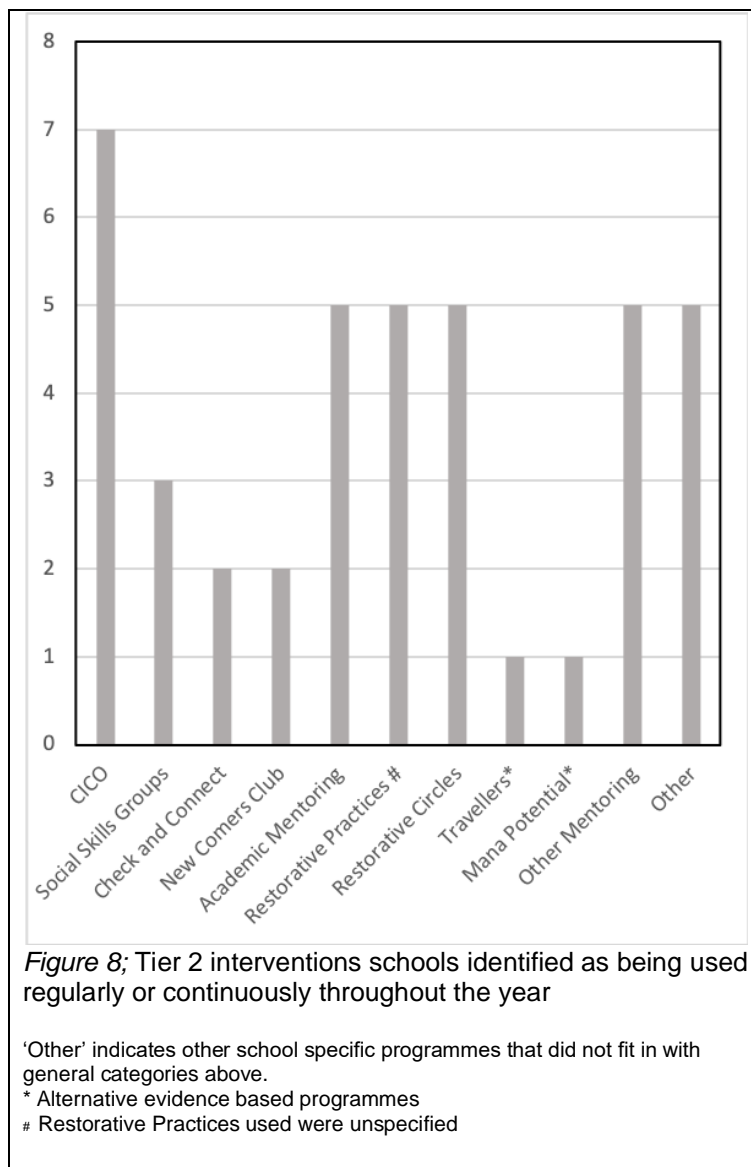
Staff.

A possible barrier to Tier 2 interventions highlighted in literature, is how Tier 2 teams communicate with, and train, staff (Flannery et al., 2013; Elder & Prochnow, 2016). For 20% of respondents rated their school as ‘not at all’ across all criteria related to staff.



As illustrated by Figure 7 at least 20% of school respondents felt staff did not understand the referral system, did not understand the interventions available, did not get professional development for interventions used, and did not know how to correctly implement Tier 2 practice for interventions. Participants commented that key barriers were other initiatives shifting staff focus and staff desire for autonomy. Schools that rated themselves highly in this area mostly identified the key challenge as the induction and training of new staff, so were focused on sustainability of the programme. One respondent indicated that because new staff were always coming in ‘completely’ was not an appropriate response.

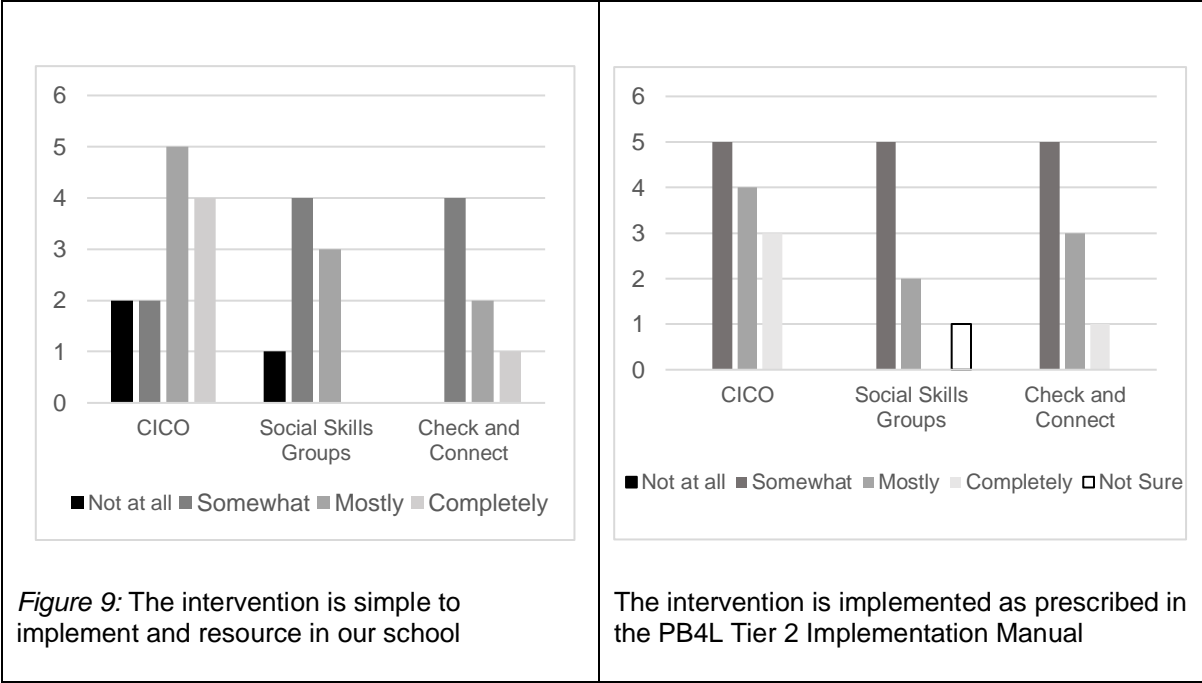
Interventions



The PB4L Tier 2 manual outlines five key interventions Check in-Check out (CICO), Check and Connect, New Comers Club, Social Skills Groups, and Academic Mentoring. The most common intervention regularly used in schools was CICO (n = 7, 50% of schools that answered this question). Academic mentoring/support, restorative practices (not specifically identified), and restorative circles all were the second choice of schools (n = 5, 35.72%).

Interventions specifically mentioned in the SW-PB4L Tier 2 Manual such as Social Skills groups (n = 3, 22% of schools), Check and Connect and New Comers Club (n = 2, 14.29% of schools) had a low up-take in secondary schools, as illustrated by Figure 8. The range of interventions within schools specifically prescribed under the PB4L Tier 2 umbrella were limited, only two schools had multiple interventions in place. Analysing the choice of interventions; 63% of schools were focused on restorative practices such as restorative circles as their key interventions.

With a focus on CICO as the most successful intervention; seven respondents reported having CICO as being regularly (n = 4) or continuously (n = 3) available within the school. CICO is identified as the simplest intervention to implement for half of the schools. It is also the intervention that is mostly likely to be implemented as prescribed (with fidelity) as indicated by Figure 9. However, of the seven that use the intervention on a regular basis more than half of the respondents are adapting the CICO intervention in some way. Given the previous discussion regarding the lack of evaluation of effectiveness of interventions within responding schools, modifying the intervention could dilute the power of the intervention, subsequently the impact will be unknown. How and why schools are modifying interventions will need to be examined further in Phase II as will why schools are choosing some interventions over others.



Respondent identification of barriers and enablers

Respondents were asked to identify the eight most significant barriers to Tier 2 implementation with fidelity, the results are listed in Table 7. All school responses align closely with previous results in the quantitative data. The most significant barrier identified is insufficient time allocated to staff to implement and monitor interventions. This supports the previously discussed significant statistical correlation between resourcing and fidelity.

A lack of functional behaviour expertise for staff was also highlighted by half of the respondents, which reinforces the earlier discussion about lack of training. For 7 schools to identify this is as important, means that schools who have had MoE training in functional behaviour analysis feel like they have insufficient expertise in the area, indicating further support and training is required.

The lack of interventions available for use was identified as the third highest barrier by respondents. This also corresponds to the Tier 2 intervention results, a limited range of

interventions are being used (Figure 8), especially Tier 2 PB4L prescribed interventions. Not having a complete intervention toolbox will provide barriers and will compound student behaviour where interventions do not meet the function of the behaviour. However, as illustrated by Figure 9 many respondents felt that some of the individual interventions were not easy to resource or implement with fidelity within their school environment.

When asked to identify the number one factor that provided a barrier to Tier 2 within their school, 46.15% of respondents identified a lack of resourcing (time and support staff); 46.15% identified a lack of support from the senior leadership team, or competing priorities from the senior leadership team in the school. These factors as key barriers are also supported by the correlation to fidelity as discussed earlier in this analysis.

Table 7*Identified Barriers to implementing Tier 2 Interventions with Fidelity (n =13)*

Barrier	Number of Responses
Insufficient time allocated to staff and implement and monitor interventions for students	10
Lack of functional behaviour analysis expertise on the Tier 2 team	7
Limited range of Tier 2 interventions available	6
Inconsistent data entry at teacher level (ODR)	5
Unclear system in place to identify Tier 2 students	5
The Tier 2 leader and team has insufficient ongoing external support	5
Professional development for Tier 2 interventions for wider staff is limited	5
Insufficient support staff resourcing	4
Middle leadership (heads of Learning) siloed and lack focus on PB4L	4
Data used to identify Tier 2 students is difficult to access	4
The Tier 2 leader has insufficient professional development in Tier 2	4
A lack of staff buy-in to Tier 2 interventions	4
Student buy in to PB4L	4
Lack of principal knowledge and leadership of Tier 2	3
Function of behaviour is not accurately identified when choosing Tier 2 intervention for a student	3
Tier 2 interventions take too long to put into place	3
Other introduced initiatives compete with PB4L	2
Limited range of staff representation and expertise on the Tier 2 team	2
Student turnover/mobility	2
Senior leadership siloed with competing portfolios	1
Tier 2 interventions are not culturally responsive	1
A focus on teaching of subjects (assessment focus)	1
Number of pupils/size of school	1
Tier 2 interventions applied incorrectly to Tier 3 students	1

Table 8*Identified Enablers to implementing Tier 2 Interventions with fidelity*

Enabler	Number of Responses
Senior leadership team support of PB4L	9
Principal displays strong knowledge and leadership of Tier 2	7
Range of Tier 2 interventions are available	7
Clear system in place to identify Tier 2 students	6
Allocation of staff time to implement and monitor interventions for students	6
Staff buy-in to Tier 2 interventions	6
Other introduced initiatives align with PB4L	5
Middle leadership (e.g. Heads of learning areas) support of PB4L	5
Consistency of data entry at teacher level (e.g. ODRs)	5
Ease of access to data to identify Tier 2 students	5
Tier 2 interventions are selected according to function of behaviour	5
The Tier 2 leader and team has sufficient ongoing external support	5
Adequate support staff resourcing to support implementation of Tier 2	4
Range of staff representation and expertise on the Tier 2 team	4
Tier 2 interventions are culturally responsive	4
The Tier 2 leader has sufficient professional development in PB4L Tier 2	4
Expertise in functional behaviour analysis on the Tier 2 team	3
Ongoing professional development in Tier 2 interventions for wider staff	1

Respondents were then asked to identify the eight most significant enablers to Tier 2 implementation as outline in Table 8. Again, responses align closely with previous results in the quantitative data. Senior leadership support and principal knowledge and leadership were identified as the most significant enablers to implementing Tier 2 interventions.

Providing the flip side of the barrier/enabler 'coin', having a range of Tier 2 interventions available was also seen as a key enabler to PB4L success. The reasons why schools have a limited range of interventions available, and specific issues are unpacked further in the Phase II of this research. When asked to identify the most significant enabler for each school, the results were not as clear cut as the identification of barriers with each school identifying a unique enabler over a number of different categories.

Qualitative Results

Five of the questionnaire respondents volunteered for the Phase Two interviews. Four were selected based on their contrasting results from the survey and the length of time they had been involved in Tier 2. Interviews were arranged with Tier 2 leaders in three of the schools (with the fourth failing to respond to contact). All Tier 2 leaders interviewed were supportive of PB4L and Tier 2 interventions, and worked in schools that had been involved in Tier 2 PB4L for at least two years. They were from different MoE regions. Basic demographics for the three schools participating are outlined in Table 9.

Coding of the interview transcripts was completed at the conclusion of the three interviews as described in the Methodology chapter under the heading Qualitative analysis. The qualitative results are presented under the following headings, Fidelity, Ministry of Education, Leadership, and School Organisation.

Table 9*Basic Demographics for Respondent Schools Phase II*

School	Size	Decile	Geographic Setting	Type
Whero High School	< 500	High (8-10)	Rural	Co-educational
Kōwhai High School	> 1000	Mid (4-7)	Urban	Co-educational
Kikorangi High School	> 1000	High (8-10)	Urban	Co-educational

Note. Definitions for urban and rural sourced from Stats NZ (2019)

Fidelity

Of the three interviewees only the Tier 2 leaders of Kikorangi School held a fundamentally ‘PB4L’ definition of fidelity:

“implementing it as it was meant to be implemented and that can be measured” although they were unsure how they would be able to check fidelity at Tier 2. The participants from Whero and Kōwhai Schools, saw fidelity as being less important than individual context and need.

“We struggle with the word but it is ... working in the spirit of PB4L ... in whatever way that means to the individual” (Whero School Tier 2 leader).

Both of the Tier 2 leaders of Whero and Kōwhai Schools saw fidelity as a start point, but that the needs of the individual student would then drive the intervention.

Ministry of Education

Analysis of the qualitative data indicated that there was no correlation between MoE support and the level of fidelity of interventions, this was explored further in the interviews.

All three Tier 2 leaders indicated that they had positive relationships with their School-Wide practitioner. Kikorangi and Whero Schools had the same School-Wide practitioner throughout their time in PB4L and considered their School-Wide practitioner to be “outstanding”. These Tier 2 leaders stated they felt that their practitioners had provided in-school, direct support and had a full understanding of the individual school. The School-Wide practitioner supported the school to “*fit existing systems within the Tier 2 structure rather than thinking you had to recreate everything*” (Kikorangi School). Kōwhai School had a change in the School-Wide practitioner and commented that their practitioner was helpful, however, the Tier 2 leader felt that the practitioner was very busy so tended to avoid approaching them.

Respondents from Kikorangi and Whero school both stated that School-Wide practitioners enabled progress to be made in regard to Tier 2 interventions by directly training staff. They both identified the School-Wide practitioner leading staff professional development in relation to the function of behaviour, as being highly useful:

“Staff were fully engaged... it was definitely of genuine interest to people” (Kikorangi School Tier 2 leader).

“It was interesting watching the penny drop ... these kids are doing these things for a reason...it is definitely something soaking into conversations” (Whero School Tier 2 leader).

Kōwhai School’s Tier 2 leader expressed a desire for their School-Wide practitioner to work directly with staff.

Several key themes emerged when discussing MoE training, and highlighted key differences in terms of training and support across MoE regions. Each school and Tier 2 leader had experienced different professional development for PB4L Tier Two. Initially Kōwhai School

and Whero School had attended a series of general Tier 2 training days run by the MoE. In both cases primary school representatives made up the majority of learners on these training days. (Whero School had the benefit of a trainer that had PB4L Tier 2 leadership experience in a secondary school). Beyond the fundamentals of Tier 2 PB4L and functional behaviour analysis training; key interventions presented on these trainings were *Check in-Check out (CICO)* and *Classroom Problem Solving Teams (CPST)*. These two schools had not received any specific training or resources for alternative (but recommended) Tier 2 interventions like *Check and Connect*, *Social Groups*, or *Newcomers Club*. Kikorangi School, instead of attending several, general, many-school, training days, had a School-Wide practioner that “*spends time in the school instead and works with the people, with teams.....once you get to Tier 2 it needs to work for each specific school as the systems can be quite different*”. Therefore, Kikorangi School has experienced Tier 2 training that has been differentiated and individualised to meet the needs of the school.

Kōwhai and Whero Schools experienced similar initial training, however, the follow up support from the School-Wide practioners has been very different. Whero and Kōwhai Schools both belong to PB4L clusters where primary schools dominate the membership. However, Whero has had further secondary-specific professional development. Kōwhai and Kikorangi Schools valued situations where the MoE had facilitated regular connections between secondary schools either through secondary only mini-conferences, secondary only meetings or providing links where there was “a secondary school voice” (Whero School Tier 2 team leader). They found this particularly helpful as they could listen to other schools’ successes and problems, and ‘bounce ideas’ around.

Comments provided by all three schools indicated a primary school emphasis within the resources (for example; the PB4L Tier 2 Implementation Manual), within exemplars of practice, and (for two schools), within the training, represented a barrier to implementing Tier 2 interventions. Kikorangi School does not belong to a cluster and their Tier 2 leader stated that the contexts between primary and secondary were very different. Whero School's Tier 2 leader stated that the primary school emphasis in the available resources made training of staff more difficult. Kōwhai School's Tier 2 leader wondered if they were trying to implement a primary school model into a secondary school context. All three schools commented on the importance of secondary school networks, resources, and case studies with a secondary school context instead of a primary school one.

Responses in the questionnaire from four schools indicated that restorative practice and PB4L did not fit together. This was investigated during the interviews, all three schools felt restorative practice and PB4L were a good fit. Kikorangi was originally a restorative school that added PB4L. Kōwhai School became a restorative school at approximately the same time as they became a PB4L school, and Whero School is a PB4L school that has some restorative elements within it. Two of these schools had restorative interventions as a core component of the school pastoral system but to differing extents. In the third school there may have been a lack of clarity of what restorative practice was and how that fitted. The Tier 2 leader described a discipline system that included detentions and other punitive interventions.

Leadership and school organisation

The quantitative data measuring fidelity against leadership support provided statistically significant correlations, therefore school leadership was specifically investigated within the interviews.

All three Tier 2 leaders stated that the school's principal was supportive of PB4L and PB4L Tier 2. Indicators of that support included; attending MoE PB4L Tier 1 training, being a member of Tier 1 or Tier 2 team or introducing (or reintroducing emphasis on) PB4L. However, the interview revealed some key factors in terms of barriers and enablers to Tier 2, that in some cases contrasted with the principal's verbal support of PB4L.

When asked specifically about what were key enablers or barriers to implementing PB4L Tier 2, all three respondents identified the school culture as either a barrier or enabler. In two cases PB4L was dropped from the strategic plan or vision and these Tier 2 leaders found it more difficult to implement Tier 2. For both schools, PB4L had previously been a key school goal but had been removed before PB4L had become 'embedded' in the culture of the school (Kōwhai) or *"where it has become business as usual it has dropped out"* (Whero School Tier 2 leader). Whero School's Tier 2 leader commented they were still *"finding a balance between the school culture and the PB4L culture"*. These two schools had new school goals, or had introduced additional structural changes within the school where there was not a clear link to PB4L (Tier 2). On the other hand, Kikorangi School stated they had a clear vision and embedded culture; *"it is part of our strategic direction ... we are a PB4L school"*. Kikorangi School had thought about how strategies or programmes work together. For example, they introduced PB4L to a restorative school because *"they complement each other, one is strengthened by the other, being a restorative school is great but PB4L gives a framework to hang that on ... so it can be more easily communicated with others"*.

In Whero and Kōwhai schools, leadership of Tier 2 stood outside of the senior leadership team (SLT). However, a senior leader in both schools still held the portfolio for pastoral care and ultimately the interventions used with students. In Whero School the respondent reported that a

key senior leader actively undermined the implementation of Tier 2. Tier 2 interventions had not yet been rolled out throughout the school, and the senior leader had required the Tier 2 team to “*jump through hoops*” and was reported to have taken a “*divide and conquer*” approach to the pastoral team. The Tier 2 leader saw this as a move to stop Tier 2 being implemented. The Tier 2 leader also reported having to “*sneak in*” interventions such as a modified version of CPST, and implementing CICO outside of the pastoral care portfolio. The other key member of the SLT was reported as being supportive but their portfolios meant they were not in a position to “*make it happen*”.

Kōwhai School’s Tier 2 team consisted almost entirely of deans. The Tier 2 leader felt that there was limited coordination and responses were reactionary rather than involving strategic planning, “*we are not thrashing things out we are not building capability, we are not building a vision together*”. The Tier 2 leader discussed a SLT that had an extensive knowledge of Tier 2, however, interpreted that their actions showed that they were not providing fundamental support for, nor following, Tier 2 processes and interventions with students, thus undermining the ability of the school to put in place interventions. Further; the Tier 2 leader felt that the wider teaching staff were aware that there was “*no real passion*” for Tier 2 from the SLT. Kikorangi School has had a different experience. The Tier 2 team had co-leaders with one being a long-time member of the SLT (the other was a key member of the pastoral team). Both leaders identified that they had a fully supportive SLT and “*there are number of people on the senior leadership team have been deans and have been heavily involved in pastoral care so have been part of what we’ve been doing anyway*”. In addition to the leader’s membership of the Tier 2 team consisted of deans as well as the guidance counsellor and the SENCO.

Within the survey where respondents were given the option within online questionnaire; Tier 2 leadership sustainability was one of the key issues identified. For two of the schools, they had had the same leaders throughout the PB4L process. However, during the interviews, training of Tier 2 members was identified as an issue. Whero School's team leader said "*I'm the only one that has gone to all of the training, someone from the Tier 1 team or a dean might have attended some of the days, but it has been ad hoc and a bit hit and miss*". Whero School had a significant turnover within the dean's team but the Tier 2 team leader identified this as an opportunity. Kōwhai school identified training as an issue to consistency and fidelity "*I have been trained according to PB4L and then deans according to who trained them, somebody else will do it according to what they think it should be*" (Kōwhai School Tier 2 team leader).

Time and availability of other resources

Two schools identified a lack of time as a key barrier for schools implementing Tier 2, and it was a key theme throughout the interviews for all three schools. Within school the process of implementing Tier 2 with fidelity included the ability to put in place interventions according to the function of behaviour and then to evaluate that intervention based on data. Tier 2 leaders commented: In regard to functional behaviour analysis "we have the knowledge, but I think where it falls down is the time resourcing" (Kōwhai School team leader). In terms of monitoring interventions, Kikorangi School's team leaders rated the school as "fair to middling";

"the really effective monitoring, we don't seem to find the time to get traction on that ... everyone is trying to juggle with whatever else they do...even if it was three or four hours a week you could be focused on these kids it would make a huge difference" (Kikorangi School team leader).

“We are not always good at going back to all of the staff that might be involved with that young person ... and keeping them in the loop with what the plan is” that “lack of communication with staff is due to time” (Kikorangi School team leader).

The implementation of CICO (which had been at a minimum trialled in all three schools) provides an example of time being a significant barrier:

“CICO, I trialled a couple of years ago.... we worked with the School-Wide practitioner at the time to make a start on it...it actually requires about 10 hours work a week ... so we reverted to our daily report, but even monitoring those was really stressful and tricky for deans, so we decided it was a no go after we had multiple failed attempts at it”

(Kikorangi School Tier 2 team leader).

“It has a tracking system that nobody uses due to the busyness of deaning” (Kōwhai School team leader).

“It is definitely more check in than check out” (Whero School Tier 2 team leader).

“It means you have to have consistent people at the start of the day and at the end of the day and it was just not sustainable” (Kikorangi School Tier 2 team leader).

Time was also a key factor in terms of preventing the implementation other interventions.

As stated earlier the MoE had not trained or provided resources in *Check and Connect*, *Newcomers Club* or *Social Skills groups* for Whero and Kōwhai Schools. Kōwhai School has *Check and Connect* ‘on the backburner’ because they don’t have the time resource to research and implement it. The respondent from Kōwhai School also stated that while they understand the function of behaviour they do not have the time to research and implement a wide range of interventions, so they are currently not responding in an appropriate way to the function of

behaviour. The Whero School respondent also identified that they need to find time to research further interventions:

“we could do some professional development around other interventions that are out there, that we could be using in our school, that is probably our next step” (Whero School Tier 2 team leader).

Findings showed that careful use of other staff provides an enabler to Tier 2. However, where appropriate staff are not made available or staff turnover occurs this then this creates a barrier. When trialling CICO in 2018, Whero used a teacher aide who “*had a lot of experience with challenging behaviour*” ... *but she has since moved on*”. Kōwhai School successfully used a Guidance Counsellor for CICO in 2018 but this was not sustainable. Kikorangi also wanted to upskill staff in implementing Tier 2 strategies ‘plus upskill the confidence levels’ but stated once again that this was a time issue.

Kikorangi School respondents reported that experiences with CICO, Check and Connect, and other mentoring programmes, have shown them to be less likely to be sustainable as they rely on the long-term enthusiasm of staff. Kikorangi Schools Tier 2 Co-Leader made the statement that:

“*so many of the kids that fall into Tier 2 have been let down by adults so much in their lives, so we are really conscious of that. So we have never gone down the mentoring track or anything like that simply from the point of view that often people start off with the best intentions and then it kind of fizzles*”

Kikorangi School took a pragmatic approach looking for interventions that are “cheap and cheerful or free” and are self-sustaining. The school had successfully focused on a variety of *social skills groups* as their means of interventions. Internal programmes include *Travellers* as a

key intervention used within the school. The deputy principal (one of the Tier 2 leaders) at Kikorangi School had also, over a number of years, carefully cultivated relationships within the community. Community groups facilitated some of the school's social skills groups, for example an external provider regularly ran a sixteen week programme to support students with anger management, and a local adolescent health support group worked with the school (and also trained deans) in other interventions.

Where schools are attempting to implement Tier 2 interventions across the school they identified further problems in meeting the target 15-20% of students. This was due to the inability to find time or staff to implement the required number of interventions.

“The kids that are on CICO are the ones who should be on Tier 3, so the genuine Tier 2 kids are missing out” (Kōwhai School Tier 2 team leader).

“There are those who need support who are just above Tier 1 and there are others that are just below Tier 3 and actually within our meetings we deal with the top end more than anything else”. (Kikorangi School Tier 2 team leader)

Kikorangi School's Tier 2 team leaders also identified a further issue. As they continue to deal with at-risk students in a positive way *“it feels like the number of kids who need Tier Two support and Tier Three support are increasing and we know that we are a magnet school for that kind of stuff ”*. Suggesting time and resourcing may become a larger challenge for the school.

Data use and evaluation was a key factor in the implementation of Tier 2 interventions with fidelity. Fidelity requires rapid availability of data to identify Tier 2 students, and data to record and evaluate the success of the intervention. All three schools used *Kamar* as their student management system. All three had various issues unpacking the data or providing teachers with

the information they needed. Obtaining academic, pastoral, and attendance data together for a range of unknown students from *Kamar* is time consuming. Kōwhai School's Tier 2 leader had used weekends to obtain the data needed to identify new students who required Tier 2 support. In Whero School the Tier 2 leader identified the appointment of a data expert who did not support PB4L to the Tier 2 team as creating a key barrier for the team. For Kikorangi School they were attempting to find how to best use *Kamar* systems to communicate Tier 2 plans with staff.

Summary

Both the quantitative and qualitative data highlights the variation in school perception of MOE support. Respondents in both Phase I and Phase II of the research highlighted the profoundly different experiences each school had experience in MOE training, on-going connection and support.

Most schools were using a limited range of Tier 2 specific interventions. The intervention identified as being used the most within Phase I was CICO although for a significant proportion of schools this was heavily modified. In Phase II for two of the schools CICO was the intervention that they had exclusively trained in. CICO specifically was found to be unsustainable within two Phase II schools due to the time commitment.

Time was identified as a key barrier factor to implementing Tier 2 with fidelity identified by schools in both the qualitative and quantitative data. Time has a significant ongoing impact throughout all aspects of Tier 2 intervention implementation with fidelity.

School leadership matters to implementing Tier 2 with fidelity. There was a statistically significant correlation between the Principal's support and fidelity of implementation of PB4L Tier 2. Qualitative information highlights that key components of the Principal's leadership include the importance of providing a clear vision, strategic planning and ensuring that PB4L

(Tier 2) is embedded into the culture of the school. The composition of the Tier 2 team is also important. Leadership goes beyond the Principal. The Senior Leadership group as a team must cohesively support Tier 2 PB4L. The support of this team had the most statistically significant correlation on the fidelity of Tier 2 interventions, was identified as the biggest barrier specifically by schools and this was also a key theme in the qualitative data.

Discussion

“For students who do not respond to Positive Behaviour for Learning – School Wide (PB4L–SW) Tier 1, strong, caring relationships based on trust are of critical importance” (Ministry of Education, 2017, p. 10). Positive Behaviour for Learning (PB4L) Tier 2 provides at-risk students with increased structure, predictability and an increase in adult support and aims to prevent an escalation of behaviour that lead to stand downs and suspensions (Walker, 2004). Therefore, implementation of Tier 2 must be conducted in such a way to support students most at risk and ensure the best outcomes. This research highlights a number of barriers and enablers to implementing Tier 2 with fidelity in secondary schools. It is important to note that barriers and enablers are often different sides of the same coin. One element poorly executed in a school will provide a barrier. Conversely the same element well executed will be an enabler.

Within school change and the link to barriers and enablers

Implementation of Tier 2 is a change; whether a fairly minor change modifying current pastoral systems (as is the case of Kikorangi School) or a major change; involving substantial change to pastoral systems (as is the case with Whero and Kōwhai Schools). When a school embarks on a path to change, considerable thought and planning should go into that change. The first part of this discussion will be organised around the steps within Kotter’s (2012) change leadership model (Figure 2), bearing in mind that the model is not always linear and that as change is planned, schools will move between steps. Barriers and enablers will be identified throughout the discussion.

Embed in culture

In order to evaluate the change process there is a need for school leaders to take a step back and analyse their position on Kotter’s Leadership Change model in relation to Tier 1 before

they embark on their Tier 2 journey. Kotter refers to “wheels within wheels” (2012, p. 27) in the change process and this is the case for PB4L Tier 2. Schools already should have PB4L Tier 1 on its way to being anchored in the culture of the school when they begin Tier 2. The strength of the culture is a reflection of the school community’s commitment to it, where a school shares the same values and beliefs. (Caldwell & Spinks, 2005). Sustainability for PB4L is the creation of a social norm it refers to “the way we do business” (McIntosh, Horner, et al., 2009, p. 328). Schools cannot enter Tier 2 without being able to achieve and maintain high School-Wide Evaluation Tool (SET) results at PB4L-SW level. Yet high SET results over time do not mean that PB4L is established in the culture of school as evidenced by the experiences of Kōwhai and Whero Schools.

Create urgency

Tier 2 is the second component of PB4L, the school will initially introduce PB4L-SW years before a school meets the criteria to qualify to move to Tier 2. When PB4L-SW is first adopted there is significant stakeholder participation, particularly from staff (Ministry of Education, 2015). The time between PB4L-SW adoption and Tier 2 implementation is likely to cover staff and senior leadership turnover and the addition of other initiatives (as is the case of Whero and Kōwhai Schools) and the initial urgency when 80% of staff voted for PB4L-SW may have faded. If this is the case, school leadership may be trying to introduce Tier 2 in a complacent or apathetic environment. Tier 2 is not just the ‘easy next step’ as implementation will usually involve major changes and resources and may have fairly significant impacts on a school pastoral care or discipline process, particularly if a school has well established punitive systems in place, which is fairly typical in a secondary school (Flannery et al., 2013; Flannery et al., 2014; Appelbaum, Habashy, Malo, & Shafiq, 2012; Elder & Prochnow, 2016). These

significant changes are not always the case, as with one school in this study, Kikorangi School was already a restorative school and had made smaller changes within current systems. Regardless of the extent of the change, stakeholders must understand the critical nature of needed change (Thornton et al., 2019). Therefore, leaders may need to revisit and refresh the origins with key players.

Table 10

Tier 2 Team Membership for Respondent Schools with the Highest Fidelity Scores

School	Team Membership
A	Senior Leader Dean Guidance Counsellor Māori/Iwi representative
B	Principal Senior Leader Dean Guidance Counsellor Teacher Head of Department Tier 1 Team Representative
C	Principal Senior Leader Dean Data specialist Guidance Counsellor Māori/Iwi representative Teacher Tier 1 Team Representative
D	Principal Senior Leader Dean Guidance Counsellor
Kikorangi	SENCO Guidance Counsellor Dean Senior Leader

Note: Schools A-D were not involved in Phase II of the research
The list is unranked.

The Tier 2 team

No single leader can plan, implement and manage effective change (Kotter, 2012; Thornton et al., 2019). The PB4L Tier 2 Implementation Manual outlines clear leadership roles and responsibilities to allocate to the team beyond the Tier 2 team leader. These team members are responsible for specific functions related to implementation and support of Tier 2 practices and systems (Ministry of Education, 2017). Therefore, a well-resourced Tier 2 team with a wide range of members is likely to be an enabler as shown by the Table 10, where schools with a wide range of expertise on their Tier 2 team reached higher levels of fidelity. This is also likely to be an indicator of the resourcing commitment the school makes to Tier 2 implementation. The team needs to include key stakeholders and the principal needs to provide support and ongoing skill development to the team (Kotter, 2012; Thornton et al., 2019). In contrast schools with lower fidelity measures tended to have quite limited Tier 2 membership, limited to deans and senior leaders, which could be considered to be a traditional pastoral team set up. A range of team membership with the requisite skills is important. It also provides credibility to the team (Appelbaum et al., 2012; Debnam, Pas, & Bradshaw, 2013; Lindsey & White, 2009). Therefore, this study supports the notion that in order to enable Tier 2 interventions with fidelity a wide range of representation is important within the Tier 2 team that goes beyond the traditional model of a pastoral team.

The Tier Team structure as recommended by the Ministry of Education (MoE) (Ministry of Education, 2017) is an example of the concept of distributed leadership. It is not unusual to have leadership outside the SLT, 25% of Phase I respondents indicated that this was the case in their school. Further, in 50% of the schools the principal was not directly involved in the Tier 2 team. Where this is the case considerable thought needs to be put into how the Tier 2 leader will

function and lead the group. In Whero and Kōwhai Schools driving Tier 2 change largely fell to the Tier 2 team leader who held a position in the school outside of the senior leadership team (SLT). These leaders faced hurdles and a likely reason for this is they lacked the positional power to make changes to systems (Kotter, 2012; Notman, 2011). Research suggests that teacher leaders are particularly susceptible to disrespect due to lack of authority (Harris et al., 2007). Therefore, when the team is established the team needs to be given the power to make the necessary changes to systems to make PB4L Tier 2 function effectively.

A key committed stakeholder of the Tier 2 team needs to be the person who holds the pastoral portfolio within the school, otherwise the Tier 2 team is going to have limited ability to change and coordinate pastoral interventions. This was the case with Kōwhai School, “we are not thrashing things out we are not building a vision together” (Kōwhai School). Leaving the person responsible for pastoral care out of the team creates issues as devolving power is likely to come with disempowerment of senior leaders particularly if the school structure has a strong hierarchical set up. (Bolden, Petrov, & Gosling, 2008; Lumby, 2013). Disempowerment creates an incentive for that senior leader to provide road blocks to change. On the other hand, including an unsupportive pastoral portfolio holder on the Tier 2 team also creates significant issues. The Tier 2 team that acts as the guiding coalition cannot contain a team-member that undermines trust (Kotter, 2012). This is illustrated by Whero School’s experience where the pastoral leader used ‘divide and conquer’ moves to prevent required change. The relationship between the Tier 2 team and the pastoral leader needs to be strong and interdependent to enable required changes for fidelity. The principal has a strong role to play in this regard, the principal must also be the Tier 2 “champion”, be willing to provide clear support and advocacy and should allow true distribution of leadership rather than just delegation of responsibility (Harris, 2013). Allowing a

Tier 2 leader to work in environment where a senior leader is actively subverting the Tier 2 process without the principal holding that leader to account is disempowering to the Tier 2 leader. Disempowering the senior pastoral leader by not putting them on the Tier 2 team also has the effect of disempowering the Tier 2 leader and team and both are likely to provide barriers to implementation.

Vision, strategy and communication

If the principal does not fully participate, engage and publicly support the Tier 2 process the Tier 2 team is likely struggle to implement Tier 2 with fidelity. The results of this research revealed a statistically significant relationship between principal support ($r = .558, p < .05$) and fidelity. The principal is key for a number of reasons. Primarily the principal is key to recognising resourcing requirements; (there is also a statistically significant relationship between the resources allocated and fidelity ($r = .640, p < 0.05$)). For example, a principal must understand the time requirements for interventions like Classroom Problems Solving Teams (CPST), Check in-Check out (CICO), and the dynamic of bringing six to eight teachers together for training and planning in a secondary environment. This is reinforced by literature, for example, Day states that changes to pastoral systems are dependent on the principals ability to “acknowledge and respond to changing realities in the personnel, policy and social worlds of the school.” (2011, p. 14). The passion and quality of school leadership is a major factor in successful implementation (Blood & Thorsborne, 2005; Debnam et al., 2013; Domitrovich et al., 2008) and is key to fostering meaningful participation and empowerment (Brooks et al., 2004).

The data is clear about the necessity for the entire SLT to be supportive of Tier 2. The correlation between SLT initiatives alignment with PB4L fidelity ($r = .710, p < 0.01$) was the most statistically significant of all of the dependent variables in regard to fidelity. Tier 2 schools

also identified senior leadership support of PB4L as the biggest enabler to implementing Tier 2 with fidelity. Support from SLT needs to include not only those that are directly involved with Tier 2 but also the wider SLT team. A lack of active leadership has a significant negative impact on teachers as staff receive mixed messages (Harris et al., 2007). A general failure to participate by the SLT also has the same impact. (Turri et al., 2016). SLT need to be aware that working independently on portfolios and having a siloed approach could also give the impression of a failure to participate (Harris et al., 2007). The SLT need to be seen to be pro-active supporters of the Tier 2 process regardless of their portfolio.

Kotter (2012) refers to the need to have a clear vision and strategy, the vision then drives the plan. This was exemplified by Kikorangi School “we are a PB4L school”. They then backed this vision up with clear goals set out in the school’s strategic plan. On the other hand, as shown by the qualitative data, where PB4L has fallen out of the goals and different priorities were now in place there was a dilution on the emphasis on PB4L within the school. This aligns with research. Without a clear sense of vision that is clearly communicated, a battle ground for personal interests and projects can evolve that creates fragmentation of effort within the leadership team once again creating an impression of a failure to participate (Day, 2011; Harris et al., 2007; Kotter, 2012; Timperley et al., 2007). Clear communication of the strategic plan and how initiatives fit is essential as communication reduces uncertainty, decreases ambiguity and impacts on whether the change espoused is seen positively by staff. Under communication and lack of meaningful dialogue have strong links to failure to make the desired changes (Appelbaum et al., 2012; Thornton et al., 2019). Harris et al. (2007) stress that communication includes the proactive support of senior leadership. Being unclear in regard to strategy with PB4L and PB4L Tier 2 creates a dilution of focus which makes it more challenging to make the required changes

to Tier 2. Further, it possibly creates a culture of competition for resources and allows diversion of attention to other projects. A clear strategy is therefore likely to create an enabler to implementing Tier 2 interventions with fidelity.

Broad-based action and embed in culture

Literature predicted that factors associated with staff in secondary schools were likely to be a key barrier to implementing Tier 2 with fidelity (Elder & Prochnow, 2016; B. Flannery et al., 2009; Johansen, Little, & Akin-Little, 2011). Schools did not identify staff as a significant factor in Phase I of the research (with other factors such as senior leadership, function of behaviour and time being far more prominent) therefore it was not specifically explored in Phase II. However, on reflection it seemed unusual that staff weren't seen as a key factor in enabling or providing barriers to Tier 2. Therefore, the quantitative data was reanalysed; and it was found that sustaining Tier 2 with staff buy-in was identified as a barrier in schools that had achieved much higher levels of fidelity at Tier 2. School B made the comment; "*We now have a number of staff who were not involved in training. Making sure they know what is going on can be a challenge*". This aligns with Kotter's (2012) work where the final steps include embedding PB4L Tier 2 in culture.

In comparison schools that are newer to PB4L Tier 2 or are struggling with the process are going to focus on factors that fit in with the earlier steps in Kotter's change model issue like establishing an effective team, establishing a vision and communication. Where staff were discussed by respondents in Phase II; Whero School School-Wide practitioners conducted PB4L refreshers for staff within the region which took pressure off PB4L teams in regard to sustainability. Kikorangi School's sustainability had been helped by the internal appointment of senior leadership. Schools that had regular interventions in place had difficulty finding the time

to effectively communicate the plan with staff, or to train staff to correctly implement the Tier 2 intervention. Quality ongoing professional development and careful selection of new staff is necessary is to sustainability (Fullan & Hargreaves, 1996; Lane, Carter, Jenkins, Dwiggins, & Germer, 2015).

Generate short term wins

Generating short term wins actually sits at an earlier stage in Kotter's model (2012) but it is being discussed last as the ability to generate short term wins comes from two places, resourcing within school (McIntosh, Horner, et al., 2009) and the likely success of the PB4L Tier 2 interventions in the secondary context which ties directly into MoE training and support. If schools struggle to find the time required for the Tier 2 team to carry out the functions of the role and to investigate alternative interventions and programmes this could lead to a susceptibility to losses rather than wins. This was illustrated by some of Kōwhai School's experiences, for example, dean frustration that CICO was not working. Short term wins are important because values will change when solutions work (Evans, 1996). Success breeds success, school personnel must experience improved outcomes" (McIntosh, Filter, Bennett, Ryan, & Sugai, 2010). Conversely if the solution to the problem doesn't work, its lack of usefulness will become engrained in reality. So, it is important that Tier 2 interventions that are initially implemented are successful. Therefore, what are the barriers and enablers to generating short term wins (or indeed any wins) when implementing Tier 2 interventions with fidelity?

Ministry of Education

A strong theme in both phases of the research was inconsistency in support and training by School-Wide practitioners. Some School-Wide practitioners were reported as excellent in their practice as highlighted by Kikorangi and Whero School's experiences. The most positive

feedback from secondary schools in regard to School-Wide practitioners occurred when schools were working with their School-Wide practitioners in partnership. In these cases, the School-Wide practitioners involved were providing active support, had a strong contextual knowledge of the school, worked dialogically with the Tier 2 leader and, at times, with the wider school staff. However, both quantitative and qualitative data clearly indicates that this is not the case for all schools. The variation is not only between regions but also between School-Wide practitioners within regions. For example, within a MoE region School E described their School-Wide practitioner as “excellent...providing support that worked within the school” and School F in the same region described a situation where the School-wide practitioner was “totally unprepared for Tier 2”.

Some schools also highlighted waning support from the MoE over time “*I do not believe that MoE support for PB4L is as committed as it was from the outset*” (School C). This inconsistency is a concern in a programme that depends on fidelity. Technical support is a critical variable to fidelity (Bradshaw et al., 2015; Walker, 2004). The results in regard to inconsistency, intensifying work load, sustainability and turnover of School-Wide practitioners is in keeping with previous New Zealand research (Boyd & Felgate, 2015). In comparison one example of research in the United States included expert coaches who each provided technical assistance to three schools with a two day on site commitment per week (Bradshaw et al., 2015). However, sustainability and workload is perhaps an issue not only at regional level but also at national office level. As discussed in the methodology chapter the list supplied by the MoE of Tier 2 schools was significantly different to the list returned by most MoE regional offices which was again different to school response about whether they were Tier 2 (or indeed even PB4L

schools). Without up-to-date and accurate data how can the MoE themselves know whether School-Wide practitioners are able to adequately support schools?

When asked whether the participants believed the MoE understood what is unique to secondary schools implementing Tier 2 only 42% of the Phase I respondents responded positively. This is concerning but may be unsurprising as a primary and middle school focus dominates research for PB4L at all tiers (Flannery et al., 2013; Bradshaw et al., 2012; Swain-Bradway & Malloy, 2009). Because PB4L research is dominated by the primary context then most examples of evidence-based practice are primary based, so the resources developed based on that practice will be most suitable for primary schools. There is a strong research base within PB4L explaining why secondary schools are very different in relation to PB4L including; the number of staff likely to be involved on a day to day basis with students (which then has immediate ramifications for interventions like CICO, CPST and intensifying Tier 1 practices). In secondary schools staff are more likely to have multiple managers; therefore co-ordination of an intervention is more difficult (Bradshaw et al., 2015; Murphy et al., 2001). The culture and developmental age of students may mean that many suggested interventions do not work (Flannery et al., 2013; Flannery et al., 2009). Secondary schools have higher rates of ‘delinquent behaviour’ and less evidence-based programmes available to them (Bradshaw et al., 2012; Greenberg et al., 2001). School-Wide practitioners have identified themselves that resources specific to secondary schools need to be developed (Boyd & Felgate, 2015).

Boyd and Felgate (2015) identified the need for greater cluster support for schools to support implementation. However, this recommendation needs some qualification for secondary schools as PB4L clusters are often made up of a large proportion of primary schools. Schools within this research noted that where the MoE enabled secondary school contacts with other

secondary schools this was significantly more useful and enabled greater confidence and ability to problem solve. Specifically, School-Wide practitioners organised secondary only mini-conferences and secondary exclusive clusters. This is supported by research, schools that have access to successful and similar schools, exemplar schools, and to refined and adapted training materials that fit context are more likely to adopt the change (McIntosh, Mercer, Nese, & Ghemraoui, 2016). The perception that the MoE does not understand secondary school contexts along with the providing of resources and training where the research has been completed in a primary is likely to be barrier for secondary schools. However, contact facilitated between secondary schools is an enabler as schools work together to problem solve within similar contexts.

In Phase I more than half of the secondary schools that use CICO do not implement it with 'fidelity' and found it difficult to resource. Two out of three of the Phase II interviewees found CICO to be unsustainable. On the other hand, three schools within Phase I used CICO consistently and found it easy to implement and resource in their school. Tier 2 training to implement interventions needs to be refined to suit a secondary school context. As explained by Whero and Kōwhai Schools the major intervention focused on during MoE training days is CICO (with CPST). In Whero and Kōwhai Schools' case this was the only specific intervention training they received. While there is significant research about CICO and its effectiveness in primary schools perhaps there is minimal evidence-based research for CICO within secondary schools. Kittelman, Monzalve, Flannery, and Hershfeldt (2018) state only three pieces of research looked at CICO for secondary based students and all three of those studies were in very restricted contexts such as residential facilities. They went on to investigate CICO use in secondary schools and found that CICO required significant modification to fit the

developmental level of students and the structure in secondary school. They qualified their research by stating those modifications had not been empirically validated. The modifications would certainly not technically meet the ‘fidelity’ requirements for CICO but worked well for students with those modifications according to the coaches working with them. What is best practice with CICO? Is it an empirically valid intervention for secondary school students? When there is empirically supported evidence in a secondary context for other interventions such as Check and Connect and Social Groups (Dickinson, Coggan, & Bennett, 2003) the question must be asked why is training for CICO as an intervention so strongly emphasised in training?

Table 11

Matching a Tier 2 Intervention to the Function of a Student’s Behaviour

Function of Behaviour			
To gain adult attention	To gain peer attention	To avoid tasks	To avoid social interaction
Check in-Check out	Social Group Instruction	Academic Support	Social Group Instruction
	Newcomers Club	Check and Connect	Check and Connect
			Newcomers Club

Source: Ministry of Education 2017 p. 137

The other aspect that must be considered is the function of behaviour. Information for Table 5.2 is taken from the Tier 2 Manual (Ministry of Education, 2017) and outlines what intervention is most suitable for each function of behaviour. CICO focuses on students whose function of behaviour is adult attention. While some secondary students seek adult attention

(which would make CICO appropriate) obtaining peer approval and peer attention is increasingly the function of behaviour for teenagers (Flannery et al., 2013; Freeman et al., 2016). So CICO may be the least relevant intervention for secondary students. Correspondingly, small group social instruction is likely to be more appropriate in a secondary school environment. The focus on social groups could explain Kikorangi School's success at Tier 2 as social groups have a greater likelihood of meeting the youth function of behaviour and could be a key enabler for Tier 2 implementation 'with fidelity'.

A point of interest that arose from Phase I of this research was a perception from schools of a clash between restorative practice and PB4L Tier 2, (with two schools specifically stating that they were had moved focus from all PB4L in favour of restorative practice; further 25% of respondents did not using any restorative interventions at Tier 2). Phase II respondents did not agree with this clash but there was varied understanding of how restorative practice fit with Tier 2. Perhaps the issue is not necessarily about the clash between Restorative Practice and PB4L Tier 2 but rather an issue of how the MoE communicates its additions that include Restorative Practice, My Youth, Wellbeing in Schools and latterly Understanding Behaviour, Responding Safety (UBRS),⁹. For example; MacDonald, Bourke, Berg, and Burgon (2015) found in their research on the *My Youth* programme many PB4L schools who used My Youth didn't know it fit under the PB4L umbrella. This is compounded by limited time to research interventions and decipher how complimentary programmes fit in. Has the PB4L jigsaw been so difficult to put together that there is a perception that pieces do not fit? In fact, in some cases, do schools see

⁹ All of these additional programmes can be implemented by non-PB4L schools but they sit under the PB4L 'umbrella'.

them as completely different jigsaws competing for resources rather than complimentary pieces in a complete picture? If the answer to the jigsaw questions is yes, this has significant time and resourcing ramifications for schools and is likely to provide a barrier to a cohesive Tier 2 interventions being implemented.

Time and Resourcing

The number one barrier identified by schools to implementing Tier 2 with fidelity was a lack of time. It is important to note that interventions at Tier 2 within secondary school are generally more time-intensive than primary schools. This is because students are more likely to have multiple issues and the intensity and commitment to the intervention often needs to be greater as the behaviours are often more deeply rooted (Kittelman et al., 2018). At Tier 2, 15% of students should be targeted for intervention, however, schools may struggle to meet the 15%. For example, Kikorangi School with a roll greater than 1000 students should have at least 150 students involved in Tier 2 interventions at any point of time. A lack of time resource is a key reason that Kikorangi School is working with kids at the ‘top end’ of Tier 2 and for Kōwhai School to be working with students that have the greatest need rather than fulfilling the 15% goal. The following is a quote obtained during Phase I of the research. The respondent was from the school ranked the highest in terms of fidelity and they summarise the time concern succinctly:

This is all time rich. It requires incredible commitment by staff to adhere to, and in some cases to persevere with a PB4L/Restorative Practice approach. Schools that are consistently seen to be working in this space should be given an extra staffing allowance of some kind in recognition of the time this takes, but also because it keeps young people in school and engaged in education. (School C)

The Ministry of Education makes suggestions for possible interventions but also make it clear that each school should fully research any interventions against Tier 2 standards before deciding on what is appropriate. (Ministry of Education, 2017, p. 158). However, the lack of time means that researching and accessing programmes and writing or obtaining resources for alternative Tier 2 interventions is difficult as shown by the experiences of the Tier 2 leader at Kōwhai School and a comment made within the questionnaire by School B;

“Initiatives like wellbeing groups and Sticks n Stones can and do work with PB4L. It can be hard to keep an eye on who is doing what”.

As illustrated by Phase I of the research interventions like Check and Connect, Social Groups and Newcomers Club are being left off school’s PB4L Tier 2 ‘menus’ by a significant proportion of schools. This was discussed in depth by Kōwhai School who had put interventions on hold simply because of the time taken to research and then resource them. Where schools have a restricted intervention menu, the school is less likely to have an intervention available to meet the function of behaviour which then provides another barrier to implementation. The same is true for complimentary jigsaw pieces like Restorative Practice. The MoE’s expectation that schools keep up to date and research additions to PB4L (for example *Wellbeing in Schools*) puts additional pressure on schools and schools may not then obtain an accurate understanding of complimentary frameworks. If schools are left to their own devices to research complimentary programmes or Tier 2 interventions without time being allocated to do it they may not see the fit within PB4L (at any level). On the other hand, where schools select programmes based on extensive research they are more likely to have higher quality implementation (Gottfredson & Gottfredson, 2002). Research is valuable, but if the school and Tier 2 leadership are not allocated time to do this and have little guidance it is less likely those programmes will be adopted.

Alternatively, they are less likely to be implemented at a level considered to be ‘with fidelity’.

In secondary schools a broad range of data that goes beyond ODRs and includes credits, qualifications, attendance and referrals needs to be used to identify Tier 2 students. This is to ensure all Tier 2 students are picked up; including those who internalise behaviour (McIntosh, Horner, et al., 2009). In Phase I of this research respondents reported they had an established system to identify students that required Tier 2 support and that they used a range of data to identify those students. However, during Phase II all of the Tier 2 leaders interviewed raised issues in relation to the collection or communication data via their school data base (in all cases; *Kamar*). In the case of Whero School the person appointed to the team that had the requisite skills to deal with the complexity of the data from *Kamar* prevented progress. The expert was not committed to Tier 2 and their membership on the team created issues and gatekept progress within the team. Research endorses the barrier data complexity creates. Boyd and Felgate (2015) found that in New Zealand even at Tier 1 barriers were created due to the complexity of data collection and data management systems. Other authors specifically address and found that Tier 2 teams are challenged by not having regular access to data that could be manipulated in a simple user friendly and timely way; further, schools entering Tier 2 required a great amount of external assistance to organise their data and strategies (Flannery et al., 2014; Flannery et al., 2013). The intensification and complexity of accessing and keeping data up-to-date at Tier 2 is a significant barrier, particularly in the secondary school environment.

Time pressure also undermines the ability to meet the basic fidelity requirements of evaluating Tier 2 interventions. Regular review of Tier 2 interventions is essential to ensuring the intervention is correct and applied appropriately. A lack of success with an intervention may

indicate a problem; such as getting the function of the behaviour incorrect, the intervention not being implemented as it was meant to, or a poor relationship with a teacher or staff member using the intervention. This evaluation is crucial to fidelity. Within Phase I of this research 50% of schools did not have a system to evaluate the effectiveness of the interventions. Where that was specifically addressed in Phase II interviews, the schools responded that this was due to a lack of time. One school did not collect evaluation data at all and others did not have time to effectively evaluate the intervention. This undermines the fundamental principles of implementing Tier 2 interventions with fidelity. Schools that are very committed to PB4L Tier 2 are struggling with the time obligation. As Gordon (2010) pointed out there is a growing gap between the resources that need to be expended in schools to meet obligations and the funding that is provided.

Fidelity

The term fidelity is not a loose concept in PB4L. “Implementing Tier Two ‘with fidelity’ means that all the processes and systems have been fully put in place and are operating effectively” (MoE 2017 p.24) and is measured by the Benchmarks of Advanced Tiers (BAT) or the Tiered Fidelity Inventory (TFI). The term fidelity appears 35 times in the MoE PB4L Tier 2 Manual and it pervades Tier 2 training. Fidelity is important because additions to, or subtractions from programmes have the potential to reduce the impact of the intervention (Domitrovich et al., 2008). Fidelity is essential as core to PB4L Tier 2 is the implementation of evidence-based interventions. SET scores were supplied by 90% of respondent schools providing a measure of Tier 1 fidelity. However, only 33% of schools supplied a fidelity score for Tier 2. The MoE has recommended the use of the BAT for a number of years but as discussed in the literature review and the methodology chapter, the BAT tool is not proven to be technically adequate in measuring

fidelity at Tier 2 and it is lengthy to administer (Massar et al., 2019; McIntosh et al., 2017). In 2017 the MoE was considering the TFI (Ministry of Education, 2017) and it has since been piloted and rolled out within some schools. It was interesting to note that two of the Phase II schools had reduced the emphasis on fidelity and were more interested in responsiveness to the individual needs of the student (rather than a set 'group' intervention). It can be inferred from the literature that this not unusual at Tier 2; for example Debnam et al. (2012) found that only half of schools were using a Tier 2 intervention with a published research base.

Ranked second on the barriers list by schools in Phase I of the research, was identifying the function of behaviour. Further, in Phase I 26.67% of schools reported not having a current member of their Tier 2 team with any training in functional behaviour analysis and 28.57% of respondents reported that they are not matching interventions with function of behaviour at all. In Phase II the respondents felt that they had adequate training in the function of behaviour and in Kikorangi School's case their respondent reported they made a genuine attempt to match interventions to function. For the Kōwhai School respondent, the perception was people working with students were trained in functional behaviour analysis but did not think about why they were picking a certain intervention. It is interesting to note, in the United States, someone like a school psychologist or social worker, would usually work students to implement or choose Tier 2 interventions, likewise there is typically someone on staff that has had extensive training in function of behaviour (Bradshaw et al., 2015; Debnam et al., 2013; McIntosh et al., 2010). The issue of having insufficient training in functional behaviour analysis could be for a number of reasons including the complexity of analysing the function of behaviour in a secondary school, staff turnover, or inadequate training. Phase II did not provide any further insight into this and the issue needs to be investigated further in the future.

Conclusion

With the pragmatic paradigm focus to this research the purpose was to find what are the barriers and enablers for school leadership in implementing PB4L Tier 2 with fidelity, with the hope of finding workable solutions. There are multiple reasons the secondary context is significantly different and more complex than a primary context when implementing Tier 2 interventions. Further the intensity and commitment to the intervention is usually greater for a secondary student than for primary aged children as the behaviours are often more deeply entrenched (Kittelman et al., 2018). A slightly different approach is needed to address the needs of secondary schools.

Limitations

There are a number of limitations to this study. The responses to the questionnaire and the interviews only described one person's point of view in terms of school implementation of Tier 2 with fidelity. Further triangulation by interviewing multiple stakeholders in the Tier 2 process would improve this as would document searches and observations. In addition, principals or Tier 2 leaders self-reported in this survey and this limited objectivity and could create some reporting bias. It is possible that some schools inflated their score. Gottfredson, Gottfredson, Payne and Gottfredson (2005) found that respondents tended to inflate measures when self-assessing fidelity. However, in both the questionnaire and the interviews the respondents appeared to be extremely honest when rating themselves and frankly discussed flaws in their implementation processes.

The survey did not include operational definitions, therefore responses to statements like *Check and Connect is implemented as described by the PB4L-SW Tier 2 Implementation Manual in our school* depended on the knowledge of the person completing the survey. The survey was

completed by principals or Tier 2 leaders so it was likely that they had adequate knowledge. However, given the differences of understanding in restorative practice between the three respondents in Phase II of the study there may be some differences in understanding of some key operational definitions. This will have an impact on results particularly in analysis of the last section of the survey which covered specific interventions being employed in the school and their fidelity levels.

The response rate at 21% of Tier 2 schools was greater than was expected for an emailed and voluntary survey. However, this did not represent a statistically significant sample for the population. The schools that responded generally reflected the PB4L Tier 2 demographic, but the lower number of low decile (1-3) schools that responded is a limitation. Further no one from this group volunteered for Phase II and while there was a strong spread of experiences within Tier 2 represented in the survey, the lack of volunteers from a lower decile school meant this limited the depth of the data collection within Phase II of the interview.

The fidelity measure used in Phase I of the research is not ideal. A fidelity measure was important to calculate correlations against the relevant dependent variables. Because most schools did not supply a fidelity measure at Tier 2 (as already discussed) a fidelity measure was constructed to approximate the TFI components as closely as possible using a four-point rating. The measure provides an approximation of Tier 2 fidelity. It was useful and an indicator of school fidelity in this case, but needed to be used alongside individual data (respondent comments and school identified barriers and enablers) to triangulate the data. A TFI Tier 2 measure would be a significantly better measure of fidelity as it is evidence based and tested. It would be interesting to conduct a correlation analysis of TFI to the dependent variables of this study when the TFI becomes more widely used in New Zealand schools.

Recommendations for the Ministry of Education

Domitrovich et al. (2008) stressed the importance of Government championing and resourcing programmes in order to achieve fidelity of implementation. What happens at ‘central office’ matters, as does what happens at regional level. The MoE has done some things very well in supporting some secondary schools implement to PB4L Tier 2. The key issue is consistency across and between regions and the gaps in secondary appropriate resources, this currently provides a barrier to implementation for some secondary schools. Tier 2 interventions could be implemented with greater fidelity in secondary schools with additional MoE support including:

- Analysing best practice for School-Wide practioners when working with secondary schools. Obtaining secondary school voice on what is effective support and training in a secondary school context is important. This research suggests that what seems to be best is differentiated, dialogic ‘within school’ support and providing opportunities for schools to work specifically alongside other secondary schools and problem solve.
- Audit School-Wide practioner workload. The research of Boyd and Felgate (2015) made it clear that there were issues with sustainability and workload for School-Wide practioners.
- This research shows that some secondary schools are managing to use a wide range of interventions with fidelity; this expertise needs to be accessed by other schools that are struggling. Working alongside expert schools to develop secondary based exemplars for a range of interventions would provide an enabler for secondary schools.

- Creating a more cohesive picture of PB4L Tier 2 interventions across programmes would be beneficial for schools, as would improving communication and the availability of professional development for those programmes.
- Tier 1 comes with a cash injection to resource schools on their Tier 1 journey. Given the time commitment (particularly in secondary school) Tier 2 schools need to be resourced with ongoing additional time allowances to allow research, resource development and intervention support.
- Best practice also means working with schools and contractors such as *Kamar* to come up with solutions to support complex data requirements.
- If Check and Connect required modification to be more culturally appropriate within the pilot it would be essential that the modifications be shared with schools. Sharing information about additionally culturally responsive Tier 2 interventions would also provide an enabler for schools.

Recommendations for School Leaders

For individual school leaders thought needs to be put into the process of planning for and managing change to ensure the successful implementation of Tier 2 with fidelity. Kotter's (2012) change model highlights some key considerations for school leaders to enable the implementation of Tier 2 with fidelity.

- The principal is key to success, outward, public and ongoing support and a commitment to resourcing PB4L Tier 2 is essential. This includes a profound understanding of the time, research and organisation commitment that Tier 2 requires and responding to that requirement with the allocation of time where possible. Principal membership in the Tier 2 team is preferable as it provides the

team with positional power. The principal also needs to ensure key stakeholders are held to account within the implementation of Tier 2.

- Meeting the qualifying standard to ‘graduate’ to Tier 2 does not mean that PB4L is embedded in the culture and is sustainable within the school. Systems within the school must be aligned and be part of the school’s strategic plan including plans for sustaining Tier 2.
- The senior leadership team must be seen to proactively support Tier 2 through word and action.
- Membership of the Tier 2 team should go beyond the traditional model of a ‘pastoral team’.
- The Tier 2 team does need to be a guiding coalition where members are committed to Tier 2 and have the requisite power to drive change. Key is the senior leader who holds the pastoral portfolio. If that person is going to provide barriers, then a review of the leader’s responsibilities is necessary so strategic goals can be met. The team needs to have a wide variety of representatives and have distributed leadership (rather than leaving the responsibility to one or two people).
- Within secondary schools a move to Tier 2 leads to the possibility there will be significant changes to discipline systems, for some schools this is a major change so this needs to be considered when planning the change.
- Think creatively about accessing resources. Take advantage of strong external relationships with organisations. Use staff creatively to support interventions.

Further Areas for Research

This research raised many questions and most remained unanswered. Based on the issues that arose during the research the following are suggested as necessary areas for further research.

PB4L is deliberately targeted at low decile schools. One of the likely long term impacts for children living in poverty is lower education achievement, alienation from school which can then be compounded by some of the models of discipline used. (Gordon, 2015). Therefore, are Tier 2 interventions compounding or removing the barriers that alienate students from school?

A further demographic initially targeted by the MoE were Māori and Pasifika students. This research found that 40% of respondent schools did not consider the cultural responsiveness of Tier 2 interventions. Further, Phase I schools did not see cultural responsiveness as a significant barrier or enabler. However, recent research has led to questions being asked about the cultural responsiveness of PB4L both in New Zealand and the United States. The question must be asked are all PB4L Tier 2 interventions actually culturally responsive? How do we know? Savage et al. (2014) asks the question; what is evidence and who decides? This question remains relevant in this context.

A comment made in the Check and Connect pilot evaluation was “parents and whānau were very distrustful of anything on paper” (Wylie & Felgate, 2016, p. 7). When PB4L Tier 2 can be data and document heavy, does the heavy data-based information create a barrier for whānau?

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Appendices

Appendix A

Survey Instrument

Introduction

Q1 Name of school (Data from the questionnaire will be collated, summarised and aggregated, no individual school will be identified)

Q2 Time your school has been involved in PB4L Tier 2?

Currently completing initial Ministry of Education training (Year 1)

2 years

3 years

4 or more years

Our school is a PB4L school but has not yet had any Tier 2 training

Our school has withdrawn from PB4L prior to completing Tier 2 training

Our school has been a PB4L Tier 2 school but has now withdrawn from PB4L.

Tier Two Team

Q3 The PB4L Tier 2 Team Leader at your school is

The Principal

Administration or support staff

A Senior Leader (e.g. Assistant or Deputy Principal)

Guidance Counsellor

Māori/Iwi representative

A Dean (or equivalent)

Teacher(s)

A Guidance Counsellor

Head of Department/Faculty

A Head of Department/Faculty

RTLB

A Teacher

Tier One Team Representative

Other (please specify)

Other (please specify)

Q4 Please identify the members of the Tier 2 team at your school. Tick all that apply.

The Principal

Māori/Iwi representative

A Senior Leader (e.g. Assistant or Deputy Principal)

Teacher(s)

Head of Department/Faculty

Dean (or equivalent)

RTLB

Data specialist

Tier One Team Representative

Administration or support staff

Other (please specify)

Guidance Counsellor

Q5 Thinking about the person in your Tier 2 team with the most expertise in Functional Behaviour Analysis (FBA) please indicate their level of training.

No training
FBA training with Ministry of Education via PB4L Tier 2 Training
FBA studied via external courses (e.g. day long workshops, block courses)
FBA studied at Bachelors level
FBA studied at Post-Graduate level
Other (please specify)
Not sure

Q6 How often do the Tier 2 Team meet?

Weekly
Fortnightly
Monthly
Termly
Other (please specify)

Q7 Would you like to make any additional comments about your school's PB4L Tier 2 team or their expertise. _____

Data and Tier 2 Selection Systems

All responses are rated as Not at all, Somewhat, Mostly, Completely, Not sure

Q8 A clear system for identifying students for Tier 2 interventions have been developed.

Q9 A wide range of data is collected to identify Tier 2 students.

Q10 Tier 2 data accessed in a straightforward and timely way

Q11 Students are identified and Tier 2 interventions are implemented in a timely way.

Q12 Systems to assess the effectiveness of interventions for Tier 2 students have been developed.

Q13 Students are matched with the appropriate targeted intervention based on function of behaviour.

Q14 The Tier 2 team has established systems to evaluate whether interventions are culturally appropriate for students.

Q15 Would you like to make any additional comments about your school's Tier 2 data collection and systems?

Leadership

All responses are rated as Not at all, Somewhat, Mostly, Completely, Not Sure

Q16 The principal understands and supports the use of interventions for Tier 2 students.

Q17 Sufficient time and resources have been allocated to staff to implement Tier 2 interventions

Q18 All of the Senior Leadership Team understand and support Tier 2 interventions

Q19 The Senior Leadership Team ensure initiatives introduced align with PB4L.

Q20 Would you like to make any additional comments about your school's leadership and the implementation of PB4L Tier 2? _____

Staff

Q21 Staff consistently apply universal school-wide (Tier 1) practices.

Not at all Somewhat Mostly Always Not sure

Q22 Staff have a clear understanding of the Tier 2 referral system.

Not at all, Somewhat, Mostly, Completely, Not sure

Q23 Staff have received training in Tier 2 terminology and are informed of what Tier 2 services are available at our school.

Not at all, Somewhat, Mostly, Completely, Not sure

Q24 Staff receive professional development in the Tier 2 interventions they participate in.

Not at all, Somewhat, Mostly, Completely, Not sure

Q25 Staff consistently apply correct practice when involved in Tier 2 interventions.

Not at all, Somewhat, Mostly, Completely, Not sure

Q 26 Would you like to make any additional comments about your school's staff and the implementation of PB4L Tier 2? _____

Ministry of Education

All responses are rated as Not at all, Somewhat, Mostly, Completely, Not Sure

Q 27 Ministry of Education documents (such as the PB4L-SW Tier 2 Manual) provide a clear pathway for establishing Tier 2 processes and interventions in a secondary school.

Q28 Ministry of Education provided Tier 2 training has been useful in establishing Tier 2 processes and interventions in my secondary school.

Q29 The Ministry of Education has provided ongoing and accessible support for Tier 2 implementation in my school.

Q30 The Ministry of Education understands what is unique to secondary schools implementing Tier 2.

Q31 Would you like to make any additional comments about the Ministry of Education and the implementation of PB4L Tier 2 in your school? _____

Tier 2 Interventions used in your school

Q 32 -43 The following **three questions were asked** for **each** the following Tier 2 interventions or supports: Strengthening Classroom Practice, Check In -Check Out, Check and Connect, Social Skills Groups

Intervention Specified e.g. Check In-Check Out - Frequency of operation

This intervention has not been used at our school

This intervention has been used from time to time

This intervention is used on a regular basis

This intervention operates continuously throughout the year

Not sure

Intervention Specified e.g. Check In-Check Out is implemented as described by the PB4L-SW Tier 2 Manual in our school.

Not at all

Completely

Somewhat

Not sure

Mostly

Intervention Specified e.g. Check In-Check Out is simple to implement and resource in our school.

Not at all

Completely

Somewhat

Not sure

Mostly

Q44 What other Tier 2 interventions have you implemented in your school?

Examples may include but are not limited to, New Comers Club, Restorative Circles, Academic Mentoring.

Q45 Would you like to make any additional comments about specific Tier 2 interventions at your school?

Barriers and Enablers



Q46 *Listed below are possible enablers to implementing Tier 2 interventions with fidelity that have been identified in literature. Please choose the 8 items you consider to be the most significant enablers of PB4L-Tier 2 within your school.*

- Principal displays strong knowledge and leadership of Tier 2
- Adequate support staff resourcing to support implementation of Tier 2
- Other introduced initiatives align with PB4L
- Senior Leadership Team support of PB4L
- Middle Leadership (e.g. Heads of Learning areas) support of PB4L
- Expertise in Functional Behaviour Analysis on the Tier 2 team
- Range of staff representation and expertise on the Tier 2 team
- Consistency of data entry at teacher level (e.g. ODRs)
- Ease of access to data to identify Tier 2 students
- Clear system in place to identify Tier 2 students
- Tier 2 interventions are selected according to function of behaviour
- Range of Tier 2 interventions are available
- Timely implementation of Tier 2 interventions for students
- Allocation of staff time to implement and monitor interventions for students
- Tier 2 interventions are culturally responsive (
- The Tier 2 leader has sufficient professional development in PB4L Tier 2
- The Tier 2 leader and team has sufficient ongoing external support (for example MOE or local clusters)
- Ongoing professional development in Tier 2 interventions for wider staff
- Staff buy-in to Tier 2 interventions
- Other (please specify)

Q47 *What would you consider to be the most significant enabler to implementing PB4L Tier 2 at your school?* _____

Q48 Listed below are possible barriers to implementing Tier 2 interventions with fidelity that have been identified in literature. Please choose the 8 items you consider to be the most significant barriers of PB4L-Tier 2 within your school.

- Lack of Principal's knowledge and leadership of Tier 2
- Insufficient support staff resourcing to support implementation of Tier 2
- Other introduced initiatives compete with PB4L
- Senior Leadership Team siloed and have competing portfolios.
- Middle Leadership (e.g. Heads of Learning areas) siloed and have a lack of focus on PB4L
- Lack of expertise in Functional Behaviour Analysis on the Tier 2 team
- Limited range of staff representation and expertise on the Tier 2 team
- Inconsistent data entry at teacher level (e.g. ODRs)
- Data used to identify Tier 2 students is difficult to access
- Unclear system in place to identify Tier 2 students
- Function of behaviour is not accurately identified when choosing Tier 2 intervention for a student
- Limited range of Tier 2 interventions available
- Tier 2 interventions take too long to put into place.
- Insufficient time allocated to staff to implement and monitor interventions for students
- Tier 2 interventions are not culturally responsive
- The Tier 2 leader has insufficient professional development in PB4L Tier 2
- The Tier 2 leader and team has insufficient ongoing external support (for example MOE or local clusters)
- Professional development in Tier 2 interventions for wider staff is limited
- A lack of staff buy-in to Tier 2 interventions
- A focus on teaching of subjects (assessment focus)
- Number of pupils/size of the school
- Student turnover/mobility
- Student buy in to PB4L
- Tier 2 interventions applied incorrectly to Tier 3 students
- Other (please specify)

Q49 What would you consider to be the most significant barrier to implementing PB4L Tier 2 at your school? _____

Q50 Do you have any additional comments regarding the enablers or barriers of PB4L Tier 2 in your school? _____

Tools used to assess fidelity in your school

Q51 What is your school's most recent SET (School-wide Evaluation Tool) result?

greater or equal to 80%

between 61 and 79%

less than 60%

Unsure

Q52 What is your school's most recent BAT (Benchmarks for Advanced Tiers) result?

greater or equal to 80%

between 60 and 79%

between 40 and 59%

less than 40%

Our school has never had a BAT assessment.

Unsure

Q53 Has your school been part of the TFI (Tiered Fidelity Inventory) pilot?

Yes

No

Unsure

Follow up

Q54 I would like our school to participate in a follow up interview

Follow up interviews will take approximately 1 hour and involve 3 or 4 staff at your school who are involved in the implementation of Tier 2 . The time and place of the interview will be arranged to suit all participants.

Yes No

Q55 Details

Name

Email Address

Contact Phone Number

Q56 I would like a summary of this research when completed

Yes

No

Q57 Details

Name _____

Email Address _____

Thank you for the time taken to complete the questionnaire. If you have any further questions please feel free to contact me.

Stephanie [REDACTED]

Appendix B

Content Comparison of Tiered Fidelity Instrument (TFI) and Researcher Developed Fidelity Measure Tier 2

<i>Content Comparison of Tiered Fidelity Instrument (TFI) and Researcher Developed Fidelity Measure Tier 2</i>	
Summary of TFI item (Algozzine et al., 2014)	Survey Instrument equivalent question used for fidelity calculation
2.1 Team membership composition and expertise (including functional behaviour analysis expertise)	Equivalent question available but was not easily converted to a simple rating system
2.2 Regular meetings plus agenda	Equivalent question available but was not easily converted to a simple rating system
2.3 Has decision rules plus uses multiple sources of data to identify Tier 2 student	Mean score between; <ul style="list-style-type: none"> • A clear system for identifying students for Tier 2 interventions have been developed • A wide range of data is collected to identify Tier 2 students
2.4 Request for assistance for student form	Staff have a clear understanding of the Tier 2 referral system
2.5 Multiple, ongoing behaviour support interventions with evidence of effectiveness	Mean score between; <ul style="list-style-type: none"> • Frequency of operation (for school identified <u>two</u> highest frequency interventions)
2.6 Intervention provides additional instruction time for skill development	Mean score between; <ul style="list-style-type: none"> • Implemented as described by the PB4L-SW Tier 2 manual (for school identified <u>two</u> highest implementation level interventions)
2.7 Intervention based on function of behaviour and culture	Mean score between: <ul style="list-style-type: none"> • Students are matched with the appropriate targeted intervention based on function of behaviour • The Tier 2 team has established systems to evaluate whether interventions are culturally appropriate for students
2.8 Student has access to Tier 1 supports	Strengthening Classroom Practices - Frequency of operation
2.9 Staff professional development on intervention	Staff receive professional development in the Tier 2 interventions they participate in
2.10 Tier 2 students proportionate to school population (at least 5%)	No equivalent question

2.11 Tracking success and monitors and modifies programmes	Systems to assess the effectiveness of interventions for Tier 2 students have been developed
2.12 Review fidelity for Tier 2 practice	No equivalent question
2.13 Annual evaluation	No equivalent question
	Students are identified and Tier 2 interventions are implemented in a timely way
Scores awarded per item 0 = not implemented 1 = partially implemented 2 = completely implemented	Scores awarded per item as per school response. 0 = Not at all or Not Sure 1 = Somewhat 2 = Mostly 3 = Completely
Total possible score for Tier 2 = 26 Score converted to percentage	Total possible score for Tier 2 = 24 Score converted to a percentage

Appendix C

Invitation to Participate in Research

Tēnā koe (NAME OF PRINCIPAL)

My name is Stephanie Andrews. I am currently a deputy principal and have been actively involved in both PB4L Tier 1 and Tier 2 teams at my previous school. I am also a student at Massey University enrolled in the Master of Education (Educational Administration and Leadership).

More than 70 secondary schools within New Zealand have implemented PB4L and have moved into Tier 2. However a significant gap exists in the New Zealand research base for Tier 2 PB4L, particularly within a secondary school context.

This has led me to my research question:

“What are the barriers and enablers for school leaders in implementing Tier 2 PB4L initiatives with fidelity in New Zealand secondary schools?”

The Ministry of Education and have supplied me with a list of secondary schools that they have on their data-base as PB4L Tier 2. Your school is on this list.

I would like to invite you to participate in this research study.

The research involves two parts:

- Part One

An online questionnaire about PB4L Tier 2 within your school. This should not take any more than 10 minutes to complete and could be completed by your school's *Tier 2 Team leader or yourself*. Here is the link to the survey: [PB4L TIER 2 SURVEY](#)

- Part Two

Follow up interviews. (Limited to a selection of schools who **opt in** at the end of the survey)

I have attached an information sheet which provides further details including a more detailed project description, an explanation of your rights, confidentiality and protection of data.

To date my research question has attracted significant interest from a number of school leaders and other stakeholders, including the MoE. It would be fantastic if the data collected in this research reflects the views of as many secondary schools as possible.

If you have any questions or any issues in completing the survey please feel free to contact me.

Ngā mihi nui

Stephanie Andrews



Appendix D

Information Sheet for School Principals



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INFORMATION SHEET SCHOOL PRINCIPALS

“What are the barriers and enablers for school leaders in implementing Tier 2 PB4L with fidelity in New Zealand secondary schools?”

Introduction

My name is Stephanie Andrews and as well as being a Deputy Principal at a secondary school, I am also a student at Massey University enrolled in the Master of Education (Educational Administration and Leadership). This year, I am completing my Masters thesis investigating the barriers and enablers in implementing Tier 2 initiatives in New Zealand secondary school. A significant proportion of secondary schools within New Zealand have implemented PB4L and have moved into the Tier 2. However, a large gap exists in the research base for Tier 2 PB4L within New Zealand secondary schools.

I would like to invite Principals or Tier 2 PB4L Team Leaders to participate in this research study which aims to determine what key factors support or provide obstacles to implementing Tier 2 with fidelity.

Project Description

The study consists of two parts

- Part One
An online questionnaire about PB4L Tier 2 within your school. This should not take any more than 10 minutes to complete.
- Part Two
A Follow-up interview. At the end of the questionnaire you will be invited to participate in a follow-up interview. Four schools who have had varying PB4L Tier 2 experiences will be selected from this group. Follow up interviews will take approximately 1 hour and involve 3 or 4 staff at your school who are involved in the implementation of Tier 2. Separate permission will be gained from these participants. The time and place of the interview will be arranged to suit all participants.

Data Management

Data from the questionnaire will be collated, summarised and aggregated. Respondents will be anonymous and no individual school respondent will be identified. If identifying data is provided in any responses, this will not be used.

Interviews will be audio recorded. Once all interviews are completed, the recordings will be transcribed and analysed for themes. No identifying data will be used, so reducing the likelihood of identifying participants. All participants will have their identity protected. Participants will send a copy of the transcribed interviews so that they can ensure they are happy with what has been recorded.

Data from the questionnaires and copies of the electronic audio files will be stored on a password protected computer, and on a backup hard drive for a period of five years, after which they will be destroyed.

Findings from this study may be used to write and publish papers or articles in national and international publications.

Your Rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study
- ask any questions about the study at any time during participation;
- provide information on the understanding that your school's name will not be used unless the school gives permission to the researcher;
- be given access to a summary of the project findings when it is concluded.
- If participating in part two of the research you can ask for the recorder to be turned off at any time during the interview.

Project Contacts

You are invited to contact the following people if you have any questions about the project.

• *Researcher:* Stephanie Andrews [REDACTED]

• *Supervisor:* [REDACTED]

• *Supervisor:* [REDACTED]

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher named above is responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher, please contact Prof Craig Johnson, Director, Research Ethics, [REDACTED], email [REDACTED]

Appendix E

Interview Questions

Phase 2 Tier 2 School Leadership Interview – semi structured.

Reminder of rights as per interview sheet

FIDELITY as a core concept of PB4L

- What does fidelity mean to you?
- What is the relevance (or importance) of fidelity (or the prescribed MoE PB4L Tier 2 processes) in implementing PB4L Tier 2 interventions in your school?

Leadership and Staff

- Could you describe how the principal and senior leadership group as a team have facilitated implementation of PB4L Tier 2 in your school?
- Schools have limited time and funding resources. How are PB4L and Tier 2 interventions prioritised relative to other initiatives and school needs?

Ministry of Education

- What has Ministry of Education support looked like for your school since your school met the criteria to move to Tier 2?

Function of Behaviour

- Key to PB4L Tier 2 interventions is the ability to identify and have a strong understanding of the function of a student's behaviour, allowing appropriate interventions to be put in place. How would you describe the level of f.b.a. expertise in your Tier 2 team?

Tier 2 Interventions

- Thinking about the Tier 2 intervention you use most often in your school.

Could you describe what this intervention looks like in your school

- for the student/staff involved
 - for the Tier 2 team.
 - Is this intervention implemented as the Tier 2 team would like?
- Your questionnaire response indicates you only use “x” interventions different Tier 2 interventions (*picked up in questionnaire data across all schools*) why has the Tier 2 team focused on these interventions?
 - How have you merged/negotiated the introduction of **restorative practices** into your Tier 2 PB4L practice?

Barriers to PB4L Tier 2

- What do you think are the main barriers that get in the way of PB4L Tier 2 interventions being implemented ‘with fidelity’ in your school? (*keep list of school identified barriers from questionnaire*)
- Why do you think these barriers are particularly significant?

Enablers to PB4L Tier 2

- In contrast to those barriers - what do you think are the main enablers that allow PB4L Tier 2 interventions to be implemented ‘with fidelity’? (*keep list of school identified enablers from questionnaire*)
- Why do you think these enablers are particularly significant?

Appendix F

Information Sheet – Interview Respondents



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INFORMATION SHEET INTERVIEW RESPONDENTS

“What are the barriers and enablers for school leaders in implementing Tier 2 PB4L with fidelity in New Zealand secondary schools?”

Introduction

My name is Stephanie Andrews and as well as being a Deputy Principal at a secondary school, I am also a student at Massey University enrolled in the Master of Education (Educational Administration and Leadership). This year, I am completing my Master's thesis investigating the barriers and enablers in implementing Tier 2 initiatives in New Zealand secondary school. A significant proportion of secondary schools within New Zealand have implemented PB4L and have moved into the Tier 2. However, a large gap exists in the research base for Tier 2 PB4L within New Zealand secondary schools.

I would like to invite Principals or Tier 2 PB4L Team Leaders to participate in this research study which aims to determine what key factors support or provide obstacles to implementing Tier 2 with fidelity.

Project Description

The study consists of two parts

- Part One
An online questionnaire about PB4L Tier 2 within your school. This should not take any more than 10 minutes to complete.
- Part Two
A Follow-up interview. At the end of the questionnaire you will be invited to participate in a follow-up interview. Four schools who have had varying PB4L Tier 2 experiences will be selected from this group. Follow up interviews will take approximately 1 hour and involve the Tier 2 Team leader. The time and place of the interview will be arranged to suit all participants.

Part Two Interview Data Management

Interviews will be audio recorded. Once all interviews are completed, the recordings will be transcribed and analysed for themes. No identifying data will be used. All participants will have their identity protected. Participants will send a copy of the transcribed interviews so that they can ensure they are happy with what has been recorded.

Data from the questionnaires and copies of the electronic audio files will be stored on a password protected computer, and on a backup hard drive for a period of five years, after which they will be destroyed.

Findings from this study may be used to write and publish papers or articles in national and international publications.

Your Rights

You are under no obligation to accept this invitation for interview. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study

Appendix G

Authority for Release of Transcripts



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“What are the barriers and enablers for school leaders in implementing Tier 2 PB4L with fidelity in New Zealand secondary schools?”

AUTHORITY FOR THE RELEASE OF TRANSCRIPTS

I confirm that I have had the opportunity to read and amend the transcript of the interview(s) conducted with me.

I agree that the edited transcript and extracts from this may be used in reports and publications arising from the research under the conditions set out in the Information Sheet.

Signature: **Date:**

Full Name - printed