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How does teacher acceptability of School-Wide Positive Behaviour for Learning relate to teaching experience, highest teaching qualification, and years since most recent teaching qualification?

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I certify that the thesis entitled “How does teacher acceptability of School-Wide Positive Behaviour for Learning relate to teaching experience, highest teaching qualification, and years since most recent teaching qualification?” and submitted as part of the degree of Master of Educational Psychology is the result of my own work, except where otherwise acknowledged, and that this research paper (or part of the same) has not been submitted for any other degree to any other university or institution.

Signed \_\_\_\_\_

Date \_\_\_\_\_

## Abstract

School-wide Positive Behaviour for Learning (SWPB4L) uses School-wide Positive Behaviour Support (SWPBS), an evidence-based intervention for reduction of student problem behaviour, as a template for its structure. Teacher acceptability of interventions is important for establishing social validity and can relate to the fidelity and effectiveness of interventions. Teacher acceptability has been found to vary in certain interventions with experience and qualifications. This study examined if SWPB4L was acceptable to teachers in three Intermediate schools and the extent to which acceptability varied according to teacher experience, highest qualification, and years since most recent qualification. Teachers were found, on average, to rate SWPB4L as acceptable but this did not vary differentially according to the demographic variables investigated in this study. Nevertheless, it is encouraging that teachers in these schools have generally found SWPB4L acceptable as this means that SWPB4L implementation in the sample schools is supported. The results are discussed in terms of the practical implications for schools.

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## **Introduction**

School-wide Positive Behaviour for Learning (SWPB4L) is a New Zealand Ministry of Education (MOE) initiative designed for the purpose of reducing rates of student problem behaviour and increasing socially desirable behaviour. SWPB4L uses school-wide Positive Behaviour Supports (SWPBS) as a template for its structure and substantial empirical evidence suggests that when implemented with fidelity, SWPB4L should be effective in developing the desired outcomes. Variables that potentially undermine implementation include low rates of teacher acceptance, and research suggests that acceptance may vary according to teacher experience and qualification (Gal, Schreur, & Engel-Yeger, 2010; Hwang & Evans, 2011; Turan, Erbas, Ozkan, & Kurkuoglu, 2010). Consequently, this study was designed to investigate whether teachers find school-wide Positive Behaviour for Learning (SWPB4L) acceptable and whether acceptability of SWPB4L varies according to teaching experience, highest teaching qualification, and the additional variable of years since attainment of most recent teaching qualification. Outcomes of this study could potentially help school staff operating SWPB4L to be able to target teaching staff with particular demographic characteristics most likely to need assistance in increasing their acceptance of SWPB4L. This may in turn lead to better SWPB4L implementation.

### **Introduction to SWPBS**

It is necessary to understand the principles, structures, and operation of SWPBS and SWPB4L in order to recognise how they can influence teacher acceptability. It is also important to understand how teacher acceptability can be an important influence in the implementation and subsequent outcomes of SWPBS and SWPB4L. As complex models they are constituted of many elements and each may impact on, and be impacted on by, teacher acceptability. Therefore the elements of SWPBS and SWPB4L should be considered separately and contiguously in terms of how they relate to teacher acceptability.

SWPBS is an American model, currently operated around the world, which guides school-wide management of student behaviour. It is a systems approach whereby research prescribed structures and tools guide the actions and responses of a team of individuals from across the school (professionals, families, students), to increase the behavioural and educational performance of students across school environments and the community. It is not a specific programme or prescribed set of interventions for a given problem as SWPBS is universally applicable. The structure and aims of SWPB4L are almost identical to those of SWPBS.

SWPBS is a positive approach based around increasing rates of desirable student behaviours using principles of applied behaviour analysis (Sugai & Horner, 2006). Desired student behaviours are identified by the team through careful analysis of school-wide behaviour data to isolate settings and behaviours of concern. Once identified, students are specifically taught the desired behaviours and why they are important. When students understand what is expected they are reinforced for using these behaviours. Ongoing data analysis is essential in order to identify and modify teaching and reinforcement procedures to facilitate students' desired behaviours and to identify other areas of concern.

The reinforcement procedures used for teaching and maintaining desirable behaviours vary according to the group reinforced. Reinforcements may be tangible rewards such as book vouchers, activity reinforcers such as sports activities, or any specific class of reinforcer that increases the rate of the desirable behaviour. Because the reinforcing value of the reinforcement varies between the groups/individuals involved, students can be involved in the identification of effective rewards. In SWPBS reinforcements are given systematically in both predictable and unpredictable ways such as lotteries. Research has demonstrated that teachers tend to find reinforcement procedures particularly acceptable (Hall & Didier, 1987;

Hall & Wahrman, 1988; Tingstrom, 1994; Turan, et al., 2010; Von Brock & Elliott, 1987; Witt, Elliott, & Martens, 1984; Witt & Martens, 1983).

### **Origins of PB4L**

PB4L was developed by the MOE as a result of priorities agreed at the Taumata Whanonga summit held in 2009 to share current education research and practice evidence (Ministry of Education, 2010). Significant public and education professional concern about rates of violent and disruptive student behaviour in New Zealand schools (Prochnow, 2006) ensured that initiatives targeting student behaviour were a priority. The summit highlighted the growing body of research that has demonstrated a positive behaviour supports (PBS) framework implemented across school environments (SWPBS) can be highly effective in reducing school-wide rates of undesirable student behaviours. The outcome of these discussions was the design of a PBS framework named PB4L and a school-wide model utilising a SWPBS template named SWPB4L.

The New Zealand Government has invested heavily in PB4L employing teams of specialists and psychologists to facilitate its development and operation in up to 400 schools by 2014/2015 (Ministry of Education, 2010), actively supporting 197 schools by 26<sup>th</sup> August 2011 (Ministry of Education, 2011). PB4L is a comprehensive framework for designing and operating interventions to manage student behaviour in a variety of ways; individually, in groups, or across a school. It also includes the Incredible Years Teacher and Parent training programmes (Webster-Stratton, 1992) for maximum impact. Given the substantial body of research e.g.(Bohanon et al., 2006; Horner et al., 2009; Muscott et al., 2004; Muscott, Mann, & LeBrun, 2008; Nelson, Martella, & Marchand-Martella, 2002; Stewart, Benner, Martella, & Marchand-Martella, 2007) that has found reliable results in reducing student behavioural problems and increasing academic engagement with SWPBS, similar results will be expected of SWPB4L.

## **Key Ingredients of PB4L**

Praise of desirable student behaviour is a key reinforcing contingency that should be used by teachers within SWPB4L. When given in specific reference to a behaviour and in the context of positive relationships between staff and students, it is a culturally appropriate and potent reinforcer (Glynn & Bevan-Brown, 2007; Scott, 2005). By developing positive relationships throughout schools, a culture of care, support, and a sense of belonging is promoted (Cavanagh, 2007, 2008). Where schools narrow their focus to academic curriculum, without emphasis on the development of desirable behaviours and positive relationships, students are more likely to fail (Cavanagh, 2008). Therefore, the use of praise and the development of positive relationships are central to the aims of education and SWPB4L to increase students' desirable behaviours and support the development of healthy communities of individuals who relate to each other and work together. The unified aims of SWPB4L and education should therefore mean that when effective, the outcomes of SWPB4L will be acceptable to education stakeholders such as teachers, students, families, and wider society.

Healthy relationships are where students feel valued and respected for who they are. For Maori students this means valuing their culture, identity, and perspectives on the world and not ignoring these aspects of them in school interactions and content (MacFarlane, Glynn, Cavanagh, & Bateman, 2007; MacFarlane, 2000, 2004). Culturally appropriate SWPB4L should support Maori perspectives through the incorporation of whānau in decision making processes and include the Maori concepts of wellbeing; hinengaro, tinana, and wairua (mind, body, and spirit). In New Zealand it has been proposed that effective features in school-wide behaviour management should also incorporate systems that value diversity and pastoral care to support student wellbeing (Andrews & Clarke, 2005).

With the foundations of SWPB4L built on positive relationships, the structure of SWPBS within a school should be clearly defined to guide effective implementation. The structure of SWPBS and therefore SWPB4L is guided by three main tenets (a) prevention, (b) theoretically sound and evidence-based practice, and (c) systems implementation (Sugai & Horner, 2006). These are linked to generate outcomes that are identified as desirable and important, and therefore acceptable, by the main stakeholders in the school e.g. staff, students, family, and community members (Sugai & Horner, 2002). The predefining of desired outcomes is important if curricula, resources, and assessment tools are to be appropriately selected to meet the accepted school needs. Each of these tenets and how they are implemented within schools to achieve desired outcomes according to research prescribed structures is discussed below.

### **Prevention**

SWPBS operates across a three tier, response to intervention (RTI) structure for preventing difficulties with student behaviour (Fairbanks, Sugai, Guardino, & Lathrop, 2007; Lewis & Sugai, 1999; Sugai & Horner, 2006; Sugai et al., 2000). The lack of desired response by a student to one tier identifies the need for referral to, and intervention, in the subsequent tier. The approach is preventative because students are taught and reinforced to use desirable behaviours, which prevents the use of alternative undesirable behaviours that produce adverse teacher reactions. Reactive approaches may inadvertently reinforce and thus increase rates of undesirable behaviours and other negative side effects such as school drop out. Preventative approaches are likely to be more effective (Mayer, 1995; Skiba & Peterson, 2000).

Primary prevention represents school-wide interventions, policies, and procedures for the teaching and management of all students. Interventions are designed in response to behavioural data gathered across school settings that indicate clear areas of need and strength.

Policies clarify the school priorities and ethos in a positive frame. Procedures for prevention of problem behaviour are organised and provided along continuum of; minor to major rule violations, increasing intensity, and aversiveness of responses (Sugai & Horner, 2002).

Primary prevention targets all school students and not specific groups of students. It involves staff, community, and family members in planning a functional and acceptable design and operation. Around 80% of students should respond to these procedures (Sugai et al., 2000).

Secondary prevention is implemented in small groups of students at risk of school failure. Participating students have been less responsive to primary interventions than peers and require extra support, in groups or individually, for academic and social success (Lewis & Sugai, 1999; Sugai & Horner, 2006). In New Zealand this may involve specialist teaching staff such as the Resource Teachers of Learning and Behaviour (RTLB) or pastoral care by school staff. Students in the second tier form approximately 15% of the school population and are at risk of future behavioural problems (Sugai & Horner, 2006).

Tertiary prevention involves individualised and focused interventions for the approximately 5% students who exhibit chronic patterns of violent, disruptive, or destructive behaviour (Sugai & Horner, 2006). These students will have been unresponsive to tier I and II interventions and require individualised and behavioural interventions by specialist staff for behavioural difficulties (March & Horner, 2002; Sugai & Horner, 2006; Sugai et al., 2000; Sugai, Lewis-Palmer, & Hagan-Burke, 2001). However, at least in Australia, the use of functional behaviour assessment is limited by the training and confidence of individual specialist practitioners (O'Neill & Stephenson, 2010). Students in tier III represent those who most frequently experience school dropout and failure, inconsistent employment, present patterns of juvenile and lifelong offending, use illegal drugs, and are most likely to experience mental illness (Eber, Sugai, Smith, & Scott, 2002; Kauffman & Landrum, 2009; Lewis & Sugai, 1999; Walker, Ramsey, & Gresham, 2004). In New Zealand, Special

Education and RTLB staff occupy the role of providing specialist services for tier III students.

### **Theoretically Sound and Evidence-Based Practice**

SWPBS is essentially a framework to guide school staff to identify and help them remediate areas of need within the school using consistent and broad data gathering systems. Data is used to ensure that intervention is based on evidential need. Data comprises incidences of student problem behaviour which are monitored in specific settings as rates of school office notifications of rule breaking. They are known as office discipline referrals (ODR). Behaviour is measured according to environment (e.g., classroom, hallway, or eating area), supervising individual, (e.g., teacher or peer, time of day), and outcome (e.g., discipline referral or reading grade). ODR typically represent disruptive behaviours such as fighting, swearing, or noncompliance that require follow up by senior management. In the middle school (intermediate primary school in New Zealand), they are commonly linked with behaviours of non-compliance and disrespect (Skiba, Peterson, & Williams, 1997). Using these data, schools identify settings for high rates of problem behaviours and select and target behavioural interventions that increase rates of alternative desirable behaviours (Alberto & Troutman, 2009). Ongoing ODR data continue to be used within the same framework to analyse intervention efficacy in managing student behaviour in the same location. It will be discussed how processes of ODR analysis and use may be acceptable to teachers and support SWPBS acceptability through the evidence of effective practice.

To ensure that the SWPBS framework is being implemented and maintained with high fidelity evidence based practice a systems approach is used. Systems are critical to the success of school-wide approaches since typical “train and hope” approaches (Stokes & Baer, 1977) do not create the conditions whereby sufficient supports or infrastructure are developed for establishing and maintaining interventions (Sugai & Horner, 2006). SWPBS explicitly

guides staff, and in particular the SWPBS team, in how to implement systems for the improvement and management of student behaviour, which allows the school to function in effective evidence based ways.

### **Systems Implementation**

To instigate and oversee SWPBS supports and infrastructure, a leadership team of students, community members, and school professionals, including the Principal, is formed to engage in team-based planning and problem solving (Sugai & Horner, 2002). The input of this team is substantial with approximately 40-50 hours of meetings required before the involvement of general staff and students and an ongoing 2 hours of meetings per month (Handler et al., 2007). This level of input from staff is necessary to create effective structures, processes, and professional knowledge for high fidelity implementation. The team is responsible for analysis of student behavioural data, the development of action plans to be implemented by all staff, and the monitoring of interventions. It therefore seems likely that factors which undermine staff input to the leadership team could also undermine the effective operation of the leadership team and of subsequent SWPBS implementation. As will be discussed, acceptability is one such factor.

The leadership team is responsible for securing the commitment of school staff to the initiative and at least 80% of school staff should be agreeable to SWPBS implementation before school-wide rollout is initiated (Sugai & Horner, 2002). For this reason and to ensure optimal staff response and acceptance to ongoing implementation, the leadership team should be comprised of personnel who the school staff respect and respond to (Handler et al., 2007). The active participation and effective leadership of the Principal in this team is similarly vital for the credibility and impact of its decisions (Colvin, 2007; Sugai & Horner, 2002). When the leadership team has put SWPBS systems in place and staff commitment is secured, successful and effective SWPBS implementation is more likely (Colvin, 2007).

## **Effectiveness of SWPBS Interventions**

It is necessary to discuss the effectiveness of SWPB4L and SWPBS in order to justify assessment of teacher acceptability. The acceptability of SWPB4L and SWPBS outcomes will be most important if there is evidence that the outcomes can be effectively generated and have meaningful impact on students and schools. It will also be discussed that acceptability will also be important in order to support SWPB4L and SWPBS implementation and the ongoing generation of subsequent outcomes.

Typically, when schools experience difficulties in managing student behaviours, they respond by increasing punitive measures such as stand-downs, suspensions, and exclusions which are associated with increased rates of problematic behaviours such as violence, disruption, graffiti, drugs, and truancy (Mayer, 1995; Rusby, Crowley, Sprague, & Biglan, 2011; Skiba & Peterson, 2000; Skiba et al., 1997; Spaulding et al., 2010). Punitive measures may exacerbate behavioural problems because they deny students opportunities to learn prosocial behaviours and push students towards antisocial peers who reinforce concerning behaviours (Kauffman & Landrum, 2009; Walker et al., 2004). Punitive approaches continue to be the most common type of school intervention for dealing with inappropriate student conduct (Gunter, Denny, Jack, Shores, & Nelson, 1993; Shores, Gunter, & Jack, 1993; Skiba et al., 1997). This may be because the general teacher perception is that behaviour problems reside almost exclusively within the learner and that they should know better (Johansen, 2010; Prochnow, 2006). According to the punitive ethos, problematic behaviour indicates the need for learner readjustment with zero tolerance of inappropriate behaviour promoting avoidance of further punishments by the learners adopting new prosocial patterns. SWPBS by contrast highlights the educative role of schools and teachers in promoting and teaching positive behaviour. This contrast in ethos may, however, impact negatively on teacher acceptance (Lohrmann et al., 2008).

In discussing the effectiveness of SWPBS there are a number of issues that must first be clarified. Firstly, SWPBS studies typically measure rates of undesirable behaviours and reductions in these rates are interpreted as indicating successful SWPBS intervention. ODR are frequently used to measure rates of undesirable student behaviours and to assess strengths and difficulties in behaviour management within a school (Irvin et al., 2006). When used consistently across personnel and settings for assessment of school-wide behaviour they are a valid measure of school-wide climate, effectiveness of school-wide interventions, and comparison of different school interventions (Irvin, Tobin, Sprague, Sugai, & Vincent, 2004) for remediating student externalising problem behaviours, e.g., fighting (McIntosh, Campbell, Carter, & Zumbo, 2009).

Schools implementing SWPBS typically collate and manage ODR data using the School-Wide Information System (SWIS) (Educational and Community Supports, 2011). The SWIS is an online database that allows schools to analyse ODR data according to need, (e.g., by location, student, time, referrer, consequence, or behaviour) and this enables schools to effectively implement and monitor the performance of SWPBS interventions (Spaulding et al., 2010). The presentation of data trends through the SWIS can communicate the effectiveness of interventions, which may subsequently positively affect SWPBS acceptability (Savage, Lewis, & Colless, 2011). Other forms of behavioural data typically collected by schools, such as stand-downs, suspensions, and exclusions, occur in low frequencies and involve a limited number of students, which limit their use (McIntosh et al., 2009). Gathering other forms of higher frequency, but lower severity, behavioural data by direct observation is expensive in time and resources (McIntosh et al.). As a result, effectiveness studies of SWPBS typically use the SWIS as the primary data collection system, and reductions in rates of ODR are seen as indicative of successful SWPBS intervention.

A second issue in discussing SWPBS effectiveness is that experimental analyses of its effectiveness tend to measure implementation fidelity within and across schools to improve the reliability of associating student outcomes to SWPBS. Measurement of fidelity establishes whether SWPBS is actually in place and enables confidence in design implementation. Indeed, with procedures as complex as SWPBS, establishing that it has been implemented with fidelity to the prescribed structures and systems is a significant outcome in itself. It will be discussed that acceptability of SWPBS relates to fidelity and fidelity relates to quality of outcomes (Gottfredson, Gottfredson, & Hybl, 1993). Fidelity measurement is therefore important because, even though it cannot causally link variables, it increases the reliability of conclusions regarding the relationship between SWPBS and student behaviour.

Fidelity of SWPBS implementation is typically measured in studies, and in practice, using the School-wide Evaluation Tool (*SET*) (Horner et al., 2004; Sugai, Lewis-Palmer, Todd, & Horner, 2005) or it can be measured effectively by the School-wide Benchmarks of Quality (*BoQ*) (Cohen, Kincaid, & Childs, 2007). The *SET* measures seven features of SWPBS implementation across school environments, personnel (including students), data systems, instructional materials, and administrative plans and procedures. It requires substantial input from trained personnel to operate and is usually used annually.

Recommended levels of implementation fidelity likely to predict positive outcomes of SWPBS are 80% on each of the features and 80% overall fidelity (Horner et al). However, some studies e.g. Bohanon et al. (2006) have reported slightly lower rates of fidelity than this and still measured effective outcomes indicating the 80/80 measure is a high threshold for fidelity. None-the-less high rates of fidelity measured according to the *SET* or *BoQ* are deemed to be an essential feature of effective SWPBS interventions.

A third and final issue in a discussion of the effectiveness of SWPBS is the issue of social validity, that is, are decreases in inappropriate student behaviours important in

effective school functioning. Schools are educational institutions working with students to provide skills to support ongoing study, future employment, and quality of life. If SWPBS does not support these aspects of school functioning then staff, student, and community efforts to establish and operate SWPBS will be futile (Dunlap et al., 2010). Given the established negative effect of student problem behaviour on academic performance (McIntosh, Flannery, Sugai, Braun, & Cochrane, 2008), SWPBS was designed precisely and explicitly for the purpose of improving student academic outcomes and SWPB4L is named to reflect this. The academic and behavioural improvements of SWPB4L should then influence wider social and academic outcomes (Horner & Sugai, 2000; Sugai & Horner, 2006; Sugai & Horner, 2002) and, if so, its social validity and acceptance should be high (Schwartz & Baer, 1991).

Social validity outcomes of SWPBS have been measured according to behavioural and academic outcomes and, less commonly, staff satisfaction. When measured across longer durations of time, outcomes are more likely to reflect overall increases in quality of life for children, families, and communities (Dunlap et al., 2010). However, in general, large scale SWPBS studies have occurred across periods of 2-5 years. Long term quality of life outcomes for children and communities are implied from research that has found life course associations between behavioural, academic, and social performance at school to post-schooling quality of employment, mental wellbeing, relationships, and involvement with the justice system (Blissett, 2009; Fergusson, Horwood, & Ridder, 2005; Moffitt, 1993). Ultimately, it is the success of SWPBS, and therefore SWPB4L, in managing long term student behaviour that will determine a large part of its social validity, that is the social perception of SWPB4L effectiveness and success that leads to acceptance. If SWPB4L is successful and socially valid, variables that undermine its success should be identified and controlled for.

## **Research Demonstrating Successful Outcomes of SWPBS**

Studies have found SWPBS to be an effective approach in reducing rates of student problem behaviour. Two studies (Barrett, Bradshaw, & Lewis-Palmer, 2008; Bradshaw, Mitchell, & Leaf, 2010) found that schools participating in SWPBS were recording lower rates of ODR across all age ranges compared to the national average after only one year of implementation. Additionally, they found significant reductions in rates of suspensions. Some improvements in reading and Maths achievement were also found, implying participating schools were able to improve academic outcomes, relative to non-SWPBS schools, by SWPBS alone.

Important academic and fiscal outcomes of SWPBS have been measured when schools experienced significant increases in student academic engagement time (Scott & Barrett, 2004). Since disciplining and administering consequences for student behaviour incidents require focussed input from teachers and students, effective behaviour modification systems should improve students' and teachers' academic engagement together. In one school SWPBS reduced rates of suspension, and therefore increased academic engagement, by over 30 days per student in the second year of implementation (Scott & Barrett). This was conservatively estimated to have saved over \$10,000 US in administrative and instructional costs. Therefore, SWPBS may be an attractive enterprise for schools and increase opportunities for academic gains with students.

There are several studies which report academic gains by students in schools with SWPBS; including increased academic engagement (Lassen, Steele, & Sailor, 2006; Muscott et al., 2008), higher academic achievement and decreased absenteeism and suspensions (Lane, Wehby, Robertson, & Rogers, 2007), and specific benefits in Maths (Lassen et al; Luiselli, Putnam, Handler, & Feinberg, 2005; Luiselli, Putnam, & Sunderland, 2002; Muscott et al), and reading (Luiselli et al., 2005; Luiselli et al., 2002; Stewart et al., 2007). Best

outcomes have usually occurred in later years of implementation and have been attributed to refinements in SWPBS organisation and implementation with increased experience and understanding of SWPBS processes and principles (Lassen et al; Luiselli et al., 2005; Muscott et al). Academic gains were attributed by the authors to increase academic engagement and due to decreases in rates of office discipline referrals and suspensions.

The relationship between academic, and in particular, student reading achievement and SWPBS has been explored in other studies because of the essential importance of reading skills in academic functioning and achievement (Catts & Camhi, 2005). Reading difficulties may make school aversive and thus result in other problem behaviours. Combining SWPBS and reading interventions has been found to successfully improve reading achievement of students (Horner et al., 2009; Nelson, Martella, & Marchand-Martella, 2002; Sadler & Sugai, 2009; Stewart, Benner, Martella, & Marchand-Martella, 2007). These results reinforce the assertion that while SWPBS can have positive effects on reading outcomes, best outcomes occur when SWPBS is combined with whole school reading programmes. It may not be enough to expect dramatic improvements of student academic achievement with SWPBS alone, its strength may lie in its augmentation of three tiered academic programmes to increase student engagement.

### **Barriers and Facilitators to Effective Implementation of SWPBS**

In order to optimise the impact of SWPBS on student academic and behaviour outcomes it is critical to reduce the barriers to effective implementation. In a pioneering pre-SWPBS study of the effectiveness of school-wide behaviour interventions, it was found that the school-wide fidelity of implementation was closely related to intervention outcomes and staff resistance formed a significant barrier to this (Gottfredson et al., 1993). Intended outcomes were to reduce rates of punitive measures with students, increase rates of positive reinforcement in the form of tangibles and praise, and generate improvements in student and

teacher perceptions of school-wide and classroom behaviour. Unfortunately, low fidelity schools did not use a database appropriately for recording rates of punitive measures, thus rates of student misconduct were abandoned as a reliable comparison measure of intervention effects across schools. However, other measures did demonstrate differences between schools and these were related to staff implementation.

Schools with strong leadership and low rates of resistance from staff were found to implement the intervention with higher fidelity than schools where it was not a priority for administrators and was resisted by staff. Only schools implementing school-wide with high fidelity experienced improved perceptions of classroom behaviour among teachers (Gottfredson et al., 1993). These schools also increased rates of positive reinforcement for students and experienced fewer undesirable changes in student perceptions of school and classroom climate. Schools with low or medium implementation fidelity experienced very few changes in these measures. As a result, it can be implied that fidelity of school-wide implementation positively relates to outcomes for students and teachers and this is most likely to occur in schools where the intervention is accepted as a priority for staff and leadership.

Correspondingly, what has been found to be the single most important barrier to implementing effective SWPBS has been staff “buy-in” (Kincaid, Childs, Blase, & Wallace, 2007). Staff buy-in was rated twice as often by teachers participating in SWPBS to be a barrier to effective implementation than any other issue. Staff buy-in was not defined but is clearly closely related to staff acceptability of, and participation in, SWPBS practices.

Low rates of staff buy-in to SWPBS have been found related to five main concerns of teachers. These were (1) lack of administrative direction and leadership; (2) scepticism that the universal intervention was needed; (3) hopelessness about change; (4) philosophical differences; (5) staff feelings of disenfranchisement from each other; and the administrator,

or the mission of the school (Lohrmann, Forman, Martin, & Palmieri, 2008). These concerns relate to factors adversely impacting on teacher acceptability of interventions for student behaviour. Because of the close connection between staff buy-in and acceptability, these concerns are likely to adversely impact on teacher acceptability of SWPB4L.

Firstly, lack of administrative direction and leadership related to administrators/Principals failing to make the universal intervention a priority. As a result staff could exhibit a lack of awareness or familiarity with SWPBS, resulting in increased specialist assistance needs, and failure to implement interventions.

Secondly, where staff were sceptical that SWPBS was necessary this related to a perceived lack of need for a behavioural intervention due to acceptable student behaviour, feelings of being overwhelmed by a multitude of different school-wide initiatives, and/or lack of perceived connection between student academic achievement, the teachers' priority, and behaviour.

Thirdly, staff sometimes felt hopeless about prospects of change. Staff, particularly older staff who had experienced a large number of school-wide initiatives, could be sceptical of the effectiveness of any intervention. Alternatively, some staff could feel that the children they dealt with were somehow different from those with whom SWPBS would be effective and so perceived that it could not be effective in their school.

Fourthly, some staff held philosophical differences to SWPBS which meant they did not accept it. Some felt that problem behaviour should be dealt with punitively. Others questioned why they should have to change their practice when the students were misbehaving; they felt threatened by the changes they would have to make to their practice. SWPBS makes comprehensive demands on teaching and administrative time for it to operate effectively and this could result in resistance from a significant number of staff not fully

committed to its principles. A third set of staff with philosophical differences felt that students should be intrinsically motivated and that SWPBS would damage this.

Fifthly, staff feelings of disenfranchisement from each other, the administrator, or the mission of the school meant that they sometimes resisted SWPBS because they were not comfortable with the climate of the school in which they worked. In these circumstances staff often resisted SWPBS because they lacked faith in the school leadership and their colleagues to make effective decisions, including those regarding the implementation of effective interventions.

Low rates of staff buy-in to SWPBS could also include reactions to any of the processes and systems, properly or improperly set up and operated, to manage SWPBS interventions. Where systems are not adequately designed, this would be likely to result in poor behaviour outcomes and subsequent lack of intervention success would not encourage staff buy-in to SWPBS. Buy-in could also vary according to issues that affect teacher acceptance of a wide variety of interventions. These same issues may impact on SWPBS acceptability and so it is important to understand it in order to control for issues that may compromise implementation.

In order to minimise the impact of issues of staff acceptability on SWPBS implementation, the recommendation in the extant SWPBS literature has been that staff acceptability of SWPBS should be high for engagement of a school with implementation processes. This is necessary to secure the strong commitment of staff to work long term. As a result, SWPBS should be made one of the three main school initiatives to communicate its long term position of priority to staff, students, and community (Colvin, 2007). To control for staff acceptability the recommendation has been to assess it through voting (Muscott et al., 2008; Sugai & Horner, 2002). A threshold of 80% in favour has been proposed to ensure adequate acceptability before implementation to limit rates of poorly motivated staff

(Muscott et al; Sugai & Horner). None-the-less, some variation around this threshold has still provided conditions for positive student outcomes, indicating it as a conservatively high threshold (Muscott et al).

The 80% acceptance threshold is a simplistic device as it does not control for various levels of commitment within the affirming staff or identify categories of personnel likely to cluster across the acceptance continuum. It is feasible that staff who vote affirmatively could themselves not be fully favourable or committed to SWPBS. Alternatively, factors such as peer pressure could lead to voting patterns skewed from a true representation of staff acceptance. These scenarios could undermine the validity of the voting outcome in its measurement of staff acceptability and in practice it seems possible that affirming staff could be less than fully motivated or sympathetic to the processes and ideas behind SWPBS.

Alternative measures of teacher acceptance include questionnaires and when staff acceptance of SWPBS has been measured in this way acceptance and perceptions of effectiveness have been high (Molina, Smith, & Pelham, 2005). However, generally research has not measured teacher acceptance of SWPBS. Therefore the relationship of staff acceptance with SWPBS implementation and outcomes has not been empirically investigated despite clear implications that the relationship is critically important (Colvin, 2007; Gottfredson et al., 1993; Sugai & Horner, 2002). The present study attempts to ameliorate this dearth in the literature by assessing the acceptability of a SWPBS model (SWPB4L) implemented in three New Zealand schools.

### **Factors affecting New Zealand SWPBS Teacher Acceptability and Implementation**

Savage and colleagues (2011) identified five key themes that contributed to the success of SWPBS in two New Zealand schools and these closely related to issues of staff acceptance. Their study qualitatively assessed factors affecting the implementation of SWPBS prior to the rollout of SWPB4L by the MOE. Participating schools had used local services to

structure and implement SWPBS. Whilst the schools were operating independently from SWPB4L, the similarity of SWPBS and SWPB4L and the New Zealand context means that the outcomes of this study are of direct importance to teacher acceptance of SWPB4L.

School readiness for SWPBS was suggested by school personnel as pivotal in ensuring that changes occurred in teacher acceptance of SWPBS necessary to change teacher delivery of effective positive behaviour strategies. It was suggested by staff that many required personal and shared experiences to bring them to a point of readiness and with the two schools studied this involved a set of failed experiences with alternative, albeit more simple, school-wide behaviour management interventions. Prior to the implementation of the failed interventions there was a general lack of acceptance of the responsibility of teachers to positively teach student behaviour and low commitment of staff to learn essential skills. As a result, implementation of positive behavioural teaching could be slow and intervention success undermined and it was only when staff became ready to accept SWPBS that desirable implementation and success became possible. School readiness and acceptance of the need for a more comprehensive and positive intervention was supported by the assistance of a specialist who provided evidence of intervention effectiveness and guidance to develop resources.

Secondly, student empowerment was a theme of SWPBS success in the two participating New Zealand schools. The empowerment of students to manage and be responsible for their behaviour and specific SWPBS interventions is in direct conflict with teacher operated models of behaviour management and thus requires some degree of staff acceptance to be implemented with integrity and without opposition. Students were elected onto leadership teams and were consulted across stages of implementation. These students modelled desirable behaviours and helped operate interventions such as distributing

equipment in the playground. Through student empowerment, students developed skills that enabled them to succeed and enabled other students to succeed.

Thirdly, community input was seen as important in delivering the immediate and wider success of the objectives. Staff acceptance of SWPBS would be necessary to motivate staff to reach beyond the scope of the classroom and into the wider social and community environments in which exist a large proportion of the setting conditions for the behaviours of students (Kauffman & Landrum, 2009). For New Zealand schools, a unique perspective in developing and judging success of SWPB4L maybe the breadth of Maori culturally appropriate principles and practices included. Too many Maori students are marginalised from engagement and success with education by mismatch between their culture and the school's, and the inclusion of practices and pedagogy that communicate the value of education to them and the value of them to their school through culturally inclusive practices, is critical for their success (Bateman & Berryman, 2008; Cavanagh, 2007; Evans & Paewai, 1999; MacFarlane et al., 2007). One way to effect culturally inclusive practices within SWPB4L would be to accept and prioritise community held wisdom and experiences through the representation and contribution of whānau and community members in decision making e.g. roles on the SWPB4L leadership team.

A fourth important area identified by (Savage et al., 2011), was professional learning. Teachers involved in the study were required to make a significant shift in their thinking, from a model of teacher power that is asserted over students using principles of punishment, to the responsibility of appropriate behaviour being taught to students through positive strategies. Teachers had to engage in professional learning, reading, observations, and feedback in order to do this and accept the fundamental principles of SWPBS. The results of teachers making this shift of acceptance were that they changed their practice in class and the interactions and relationships they had with children. Beyond the initial stages of SWPBS

implementation, ongoing acceptance and commitment was required from staff to continue their implementation of positive strategies and to support the learning of other staff, particularly new staff and those inclined to return to punitive teaching methods.

Finally, evidence-based decision making was found to be a fifth area of importance. Data providing evidence of success were found to support teachers to change their beliefs and behaviours towards acceptance, thus helping to perpetuate the successful implementation of SWPBS. The two schools involved in the New Zealand study (Savage et al., 2011) both utilised the SWIS for data collection of significant school and community behaviours. Data provided staff with evidence of student behaviour patterns through graphic representation of desirable and undesirable student behaviour prior to, and in response to, interventions. The SWIS was found to present behaviour in ways that enabled teachers to analyse it rationally and without emotive connotations. This is particularly important given that teachers do not always recognise changes in behaviour or change their impressions of children despite changes in behaviour (Reitman, Murphy, Hupp, & O'Callaghan, 2004).

Data that clearly demonstrate changes in patterns of student behaviour, and in particular demonstrate desirable response to SWPBS interventions, should be used to support teacher acceptance since it has been found that interventions should be perceived by teachers as effective and important for acceptance (Whinnery, Fuchs, & Fuchs, 1991). The SWIS provided evidence of success through graphic display of student response to interventions and, despite the caveat that these opinions may be based more on belief and personal experiences than empirical data (Whinnery et al., 1991), it was found that using the SWIS data could support staff buy-in and acceptance (Savage et al., 2011). In the same way the incorporation of evidentially effective reading programmes into SWPB4L, at least with primary age children, should be considered in order to incorporate academic indices of success and maximise teacher acceptability.

## **Teacher Acceptance of Interventions**

It has been discussed that teacher buy-in to and acceptance of SWPBS can be important in establishing desirable levels of implementation fidelity and subsequent outcomes (Kincaid et al., 2007; Savage et al., 2011). However, this has not been empirically validated. This conclusion is supported by research that demonstrates teachers tend to implement interventions they accept with greatest integrity. Acceptability of interventions is moderated by several important variables and there is every reason to believe that these variables can also impact on SWPBS acceptability, fidelity, and subsequent outcomes.

Teachers report that in their classroom practise they use interventions they find acceptable, especially positive based interventions such as the “good behaviour game” (Tingstrom, 1994; Turan et al., 2010). However, teacher acceptance of SWPBS is not only important for fidelity of implementation but because without acceptability, regardless of the outcomes, it cannot be considered effective or socially valid (Schwartz & Baer, 1991). Essentially, acceptance of SWPBS is a necessary outcome prior to proclamation of success.

This means that not only should acceptability be a necessary outcome, it should be an objective of SWPBS. Acceptability is a measure of the importance teachers, students, family, community members and the wider society including administrators and politicians attribute to the intervention (Schwartz & Baer, 1991). Without acceptance the objectives of an intervention are meaningless, that is they are not socially valid.

Wolf (1978) described how the acceptability of interventions varies according to whether the goals of procedures are important and relevant to the desired changes, if the techniques used are acceptable to the consumers, if they cost too much (in terms of effort, time, discomfort, ethics etc), or if the consumers are satisfied with the outcomes, both with the predicted behaviour change and with any unpredicted side effects. In the context of SWPB4L, consumers are the groups referred to above by Schwartz and Baer (1991). Factor

analysis of teacher acceptability of classroom interventions has identified variation according to five similar factors (Witt & Martens, 1983) and these are discussed in more detail later. Is the intervention suitable for mainstream classroom settings? Does it pose any unnecessary risk to the child? Does the intervention require too much teacher time? Does it have negative side effects on other children? Does the teacher possess the skill to implement the intervention? These factors are important because an unacceptable procedure is often met with resistance from the population it is intended for and unless controlled for, can lead to individuals from within the same populations taking measures to undermine it and the intended outcomes (Schwartz & Baer, 1991). This means that SWPBS should be acceptable to teachers and the wider community if it is to have an effective role in improving the socially important objectives it strives to achieve.

### **Relationship between Teacher Acceptance and SWPBS Implementation Fidelity**

Teachers are the primary agents of implementation and so it is they whose acceptability will most immediately affect intervention fidelity and outcomes such as rates of problem behaviour. Acceptability of interventions varies across teachers and where there is a selection between appropriate (i.e., evidence based interventions; Sugai & Horner, 2002), the most acceptable should be selected. This is because the most acceptable is the most likely to be implemented with fidelity and, when other variables such as level of teacher input are controlled for, therefore impact positively on student behaviour (Polloway, Bursuck, Jayanthi, Epstein, & Nelson, 1996). As a result, it can be inferred that for SWPBS to be implemented in schools as intended, and generate socially acceptable outcomes, its acceptability to teachers should be assessed. Additionally, any barriers should be identified, and where possible controlled for or overcome.

There is further evidence that acceptability of interventions relates to fidelity of implementation. Intervention acceptability has been found related to implementation fidelity

of reading interventions for children (Henninger, 2010). Generally, when reading intervention treatment acceptability was high, fidelity was high. Additionally, a positive relationship was found between acceptability and the reading fluency of the children (Henninger, 2010), meaning an acceptable intervention increased the probability of an effective intervention. However, social skills intervention acceptability and implementation integrity were only weakly related when implemented by early childhood special education teachers (Peterson & McConnell, 1996). Therefore, treatment acceptability and fidelity relationships may vary according to a variety of factors specific to the area of implementation possibly including practitioner and type of intervention.

Because of the inconsistent magnitude of the relationship between fidelity and acceptability it has been hypothesised that intervention feasibility and perceived effectiveness could have greater impact on fidelity than acceptability (Mautone et al., 2009). However, as will be discussed, feasibility and perceived effectiveness also impact on acceptability and this is paradoxical. But the implication of this research is that acceptability may be most potent in simple and effective interventions. For SWPBS, the value of data driven and team driven decision making to generate straight forward and less effortful interventions may mean that an intervention variously accepted by school staff may still be implemented with fidelity and effectiveness. The lack of clarity on this matter means that further research is necessary to elucidate the relationship between acceptability and fidelity.

### **Measurement of Teacher Acceptability**

Teacher acceptability has been most commonly studied through the administration of questionnaires that enquire about teachers' perceptions of a particular intervention. They ask participants to consider a given intervention as examined by a particular question and then to respond according to the degree to which they agree or disagree. The questionnaire then continues to enquire about the perceptions of participants regarding the intervention using a

variety of items covering all factors of intervention acceptability. Since 1983 these have related to the factors described by (Witt & Martens, 1983). An overall outcome using collated data from across participants is then used to compute acceptance.

Acceptability of interventions targeting students with behaviour needs has been measured using the Treatment Evaluation Inventory (*TEI*), a 15 item, 7 point Likert Scale questionnaire (Kazdin, 1981). Since then teacher acceptability has been studied predominantly using acceptability measures developed by or from those used by Witt and colleagues. These include the *IRP*, a 20 item, 6 point Likert scale (Witt & Martens, 1983) and the later refinement, the *IRP-15*, a 15 item scale (Martens, Witt, Elliott, & Darveaux, 1985). Computed reliability was reputedly improved from 0.93 to 0.98 for the later scale (Hall & Didier, 1987). The Intervention-Process Rating Scale (*IPRS*), an 11 item, 6 point Likert acceptability scale was based on the *IRP-15* (Kutsick, Witt, & Gutkin, 1991) and was developed specifically by the authors for their study. Some studies have attempted to measure acceptability by including perceptions of effectiveness because of the close links between the two (Tingstrom, 1994). The Behaviour Intervention Rating Scale (*BIRS*) was developed for this reason from the *IRP-15* and included 9 additional items measuring perceptions of effectiveness (Elliott & Treuting, 1991; Von Brock & Elliott, 1987).

Acceptability of interventions has often involved teachers rating their acceptability of analogue interventions. Typically, teachers are presented with a hypothetical scenario involving a student with a described pattern of behaviour and a described intervention or selection of interventions to assist them with the given student. The teacher's task is to rate their acceptability of the intervention in the given scenario and, less commonly, to select the intervention they find most acceptable (Hall & Didier, 1987; Hall & Wahrman, 1988). Analogue scenarios maybe limited by differences between the stated beliefs of teachers and their actions and have been criticised as employing simplistic measurement devices and

lacking authenticity (Finn & Sladeczek, 2001), however there is good reason to believe that the two are closely linked and important (Tingstrom, 1994). None-the-less, the present study measured teacher acceptance of real-world SWPB4L implementation to ensure authentic results and conclusions.

### **The Five Factors of Teacher Acceptance of Interventions**

**Teacher acceptability and teacher input.** The foundations of intervention acceptability research with teachers occurred in the 1980's and despite this research being characterised by simple analogue investigations, the results generated remain relevant and meaningful (Tingstrom, 1994). These studies have not been updated by more real-world research and remain central to the discussions of contemporary acceptability research. For this reason they are included below as foundations for the reasoning behind the present study.

Teachers find interventions unacceptable if they require substantial input from them (Witt & Martens, 1983; Witt, Martens, & Elliott, 1984). The less demanding the intervention on teacher time, the less impact on acceptability. Teachers also seem to perceive a balance of input with need, the more severe the behaviour the greater the input that may be justified, and vice versa (Witt & Martens; Witt, Martens et al). However, it is logical for there to be a point of severity that varies according to individual teachers, where an intervention will become unacceptable because it is too demanding on teacher input.

Teachers have been found to most resist interventions that involve adaptations to their classroom practice, environment, programming, and assessment (Schumm & Vaughn, 1991). In the same way, general education teachers may prefer to use interventions with which they are familiar and find at least mildly acceptable rather than those they simply find acceptable (Hall & Wahrman, 1988). Where interventions are targeted to students with behavioural needs this is likely to be because teachers often see the fault of behavioural problems as residing within the learner and thus reject adaptations that involve change to their practices

(Prochnow, 2006; Westling, 2010). In effect, the acceptability of behavioural interventions may be affected by low acceptability of students with behaviour needs, especially when their behaviours and needs impact on other students' needs (Grieve, 2009) and contribute to the teachers stress and burnout (Covell, McNeil, & Howe, 2009).

However, teachers are more likely to accept interventions when external support is provided by a specialist and/or Teacher Aide (Prochnow, Kearney, & Carroll-Lind, 2000). The systematic structure of SWPBS mandates that changes to classroom practice, environment, programming, and assessment are necessary. This is especially so if the teachers are operating from a punitive behaviour management approach and for these teachers SWPBS may be difficult to accept. For them a personal journey, shared with other staff, to come to a point of readiness (Savage et al., 2011) maybe a necessary precursor to acceptance. Where changes are facilitated by additional staff and specialists, acceptability may be increased but it is not clear to what degree and under what conditions.

A significant but sometimes time consuming element of SWPBS is the measurement and monitoring of implementation fidelity and performance using systems such as the *SET*, *SWIS*, and documentation of reinforcement dissemination. This enables school personnel to adapt interventions to optimise their performance in managing student behaviour. The size and complexity of these monitoring systems may be daunting for teachers and, if so, their acceptance of them potentially could be reduced. But monitoring processes of intervention fidelity can be acceptable to classroom teachers when the demands placed on teachers are not too frequent or intense (Easton & Erchul, 2010). Feedback from monitoring of individual implementation to teachers was found most acceptable when delivered in a personal context. In terms of SWPBS, this means that the low frequency of the yearly administered *SET* may be acceptable to staff but additional monitoring and processes to augment teacher effectiveness should be managed carefully in order not to overwhelm. Where issues of

individual staff SWPBS implementation result from monitoring processes, these should be delivered individually in order to support acceptability.

**Avoidance of risk and adverse side effects to subjects and others.** Teachers rate positive interventions as more acceptable than punitive interventions (Hall & Didier, 1987; Hall & Wahrman, 1988; Tingstrom, 1994; Turan et al., 2010; Von Brock & Elliott, 1987; Witt, Elliott, & Martens, 1984; Witt & Martens, 1983) and strong adverse side effects seriously compromise a treatment's acceptability (Kazdin, 1981). Positive interventions do not seem to threaten the risk of adverse side effects or negative outcomes that are undesirable for teachers. Given the positive behavioural origins of SWPBS this bodes well for general acceptance of its strategies.

Positive interventions encompass all kinds of procedures for increasing behaviour and include tangible reward procedures as well as praise. Token economies are types of procedures that are incorporated into SWPBS, where desirable student behaviour is reinforced with a token representing a discriminative stimulus for later access to a reinforcer. Tokens may be individually exchanged for or accumulated for later exchange at a criterion total for a reinforcer. Token economies were found more acceptable than response cost procedures while least acceptable were punitive based timeout procedures (Von Brock & Elliott, 1987). This means that the positive intervention strategies used in SWPBS, such as token economies, should be acceptable to teachers.

However, teachers have expressed concerns that individual token economies may not generalise to other settings or beyond intervention duration (Reitman et al., 2004). Additionally, where token economies require adaptations to classroom programming they may be less acceptable to teachers (Schumm & Vaughn, 1991). This meant that some teachers rated individual token economies as low in acceptance despite very positive treatment effects (Reitman et al.). Therefore, the impact of SWPB4L token economies on

teacher programming should be carefully monitored and data trends and outcomes clearly communicated with staff in order to motivate acceptance of SWPB4L.

**Acceptability and effectiveness.** Identified as an important factor in acceptability by Wolf (1978) but not by Witt and Martens (1983) is intervention effectiveness (i.e. does the intervention result in desired outcomes). It seems intuitive that acceptance is likely to vary according to the effectiveness of an intervention but factors such as amount of required teacher input to operate a programme may be more potent variables than effectiveness. Contrasting evidence exists regarding the role of perceptions of intervention effectiveness on acceptability. Analogue intervention research has found that treatment efficacy did not seem to relate to acceptance (Kazdin, 1981) but other research has found that it did (Tingstrom, 1990, 1994). However, Kazdin conjectured that acceptability could have related to intervention effectiveness if treatment efficacy had been more widely separated than presented in their study because a very ineffective treatment would be unlikely to be as accepted as one that was very effective. It can be concluded that there are limitations of the importance of perceived effectiveness on teacher acceptability and that efficacy is but one of the factors influencing acceptability.

None-the-less, teachers rated interventions as more effective if they were also rated as more acceptable (Von Brock & Elliott, 1987). Interventions, whether positive or punishment based, were also likely to be more acceptable to teachers if they were perceived as more effective (Tingstrom, 1990, 1994; Turan et al., 2010). Therefore, perceived effectiveness is an important variable in staff acceptability and the data-based feedback of the SWIS is an important tool communicating tool (Kincaid et al., 2007; Savage et al., 2011).

Information supporting an intervention's effectiveness that was based on research was found to increase an intervention's acceptability more for mild behaviour problems than for severe problem behaviours (Von Brock & Elliott, 1987). Severe behaviours were defined as

those that impacted on the class whereas mild problem behaviours exclusively affected the individual eliciting them. Research may be less important for increasing the acceptability of interventions for severe behaviour problems because pragmatic concerns such as practicality, ease of use and peer practice are more salient to teachers for severe behaviours (Von Brock & Elliott). This means that SWPBS may be made more acceptable if supported by research, although tier II and III interventions may require additional measures such as peer and specialist support.

Similarly, teachers' acceptability of interventions has been found to vary with the severity of the targeted behaviour and the amount of effort and time required operating them (Elliott, Witt, Galvin, & Peterson, 1984; Witt, Elliott et al., 1984). Interventions for moderately severe behaviours but requiring substantial teacher input are unacceptable (Witt, Elliott et al; Witt & Martens, 1983) but more severe behaviours such as destroying property have generated greater acceptability for more complex and punishing procedures such as a response cost/token economy and timeout (Elliott et al; Tingstrom, 1990; Witt, Elliott et al). It is as if teachers balance the severity and impact of behaviour with the input and punitive response perceived necessary to intervene. Interestingly, the response cost/token economy was found the most acceptable procedure for all behaviours, regardless of severity (Elliott et al), although New Zealand teachers may find this particular procedure less acceptable than American teachers (Curtis, Pisecco, Hamilton, & Moore, 2006). Therefore, the acceptability of SWPBS and SWPB4L is likely to be supported where teacher input is low, however, acceptability will vary with teachers' perception of the severity of the behaviour they encounter. If teachers perceive that student behaviour within the school is generally quite severe they are likely to be more accepting of SWPB4L interventions that demand greater teacher input. However, teachers participating in SWPB4L could require encouragement to accept the often used response cost/token economy procedures. Teacher acceptability of

SWPB4L could therefore relate to their perceptions of the severity of student behaviour and this is measured by, for example, item 5 on the *IRP-15*.

**Does the teacher possess the skill or experience to implement the intervention?**

For a teacher to find an intervention acceptable they should perceive that they have the skill or experience to effectively implement it (Witt & Martens, 1983). Therefore, for optimum acceptability of SWPB4L, teachers should perceive that they possess all necessary skills or experience to implement and participate and, if not, measures such as professional development should be used so that they do.

Acceptability and use of positive interventions has been found to vary according to years of teaching experience (Turan et al., 2010). Experienced teachers found positive strategies less acceptable than less experienced teachers and used positive strategies less frequently. Teachers with special education experience and/or training used positive strategies more often. Similarly, older and more experienced teachers were less positive than younger and less experienced teachers about interventions designed to include children with a range of disabilities including behaviour needs (Gal et al., 2010). This finding was replicated with older more experienced general education teachers found to have more negative attitudes towards inclusion than younger and less experienced teachers (Hwang & Evans, 2011). The authors suggested teacher training programmes as possibly being responsible, although this was conjecture. It is possible that simple life course events could be responsible for these attitudes. None-the-less, the results of this research suggest that skill and experience may work in opposite directions on acceptability with greater training and knowledge of intervention practices increasing acceptance of positive interventions but experience in the mainstream teaching environment reducing acceptance of positive interventions.

Other variables may mediate the relationship between experience/skill and teacher acceptability. For example, teacher acceptability of interventions can be positively affected

where support is provided for them to plan and contribute to intervention development (Luze, 1997). Provision of support to plan and develop interventions may be valuable where interventions are prone to poor acceptance and if teachers perceive they lack skill, knowledge, or confidence to plan or implement. Even if teachers have not been directly involved in intervention development, the knowledge that it has been developed collaboratively between a teacher and a specialist may be enough to increase its acceptability (Kutsick et al., 1991). But, acceptance is only supported if when teachers collaborate they feel safe from recriminations by school management (Hayes, Hindle, & Withington, 2007). Therefore the collaborative planning processes prescribed for SWPBS may have a very important role in supporting teacher acceptance.

**Is the intervention suitable for mainstream classroom settings?** Little research has pursued the role of acceptability and suitability of interventions in mainstream classroom settings. This is disappointing since SWPBS is used as a mainstream intervention. The mainstream primary classroom is a diverse and busy place and teachers can be stretched to meet even the needs of typically performing students. The secondary school context is equally challenging with regular changes of pupils and teaching demands. For these reasons it is likely that this factor relates closely to teacher input and additional demands placed on a mainstream teacher to operate an intervention that is perceived as targeting students who would be better suited to placement outside the mainstream. However, the relevance of SWPBS to the mainstream audience to whom it is administered would also be important as, for example, teachers may not perceive a need for intervention if they experience no behaviour problems with their students. Equally, if teachers perceive unpleasant side effects of SWPBS such as students becoming “extrinsically motivated” or being rewarded for something expected of them (Lohrmann et al., 2008), they may think it unacceptable for mainstream “intrinsically motivated” children.

Other factors relating to mainstream interventions may also be important and, as noted earlier, the acceptability of interventions may be tarnished by low acceptability to teachers of students with behaviour needs, especially when their behaviours and needs impact on other students' needs (Grieve, 2009) and teacher stress (Covell et al., 2009). Teachers can resist the inclusion of students with behaviour needs in mainstream classes and this is more likely when they feel they are inadequately supported (Prochnow, 2006). Similarly, Kindergarten teachers express more concerns about including children with behaviour needs than about including children with sensory/motor disabilities (Gal et al., 2010). As a behavioural intervention, teachers could perceive that SWPB4L is designed to target behaviour needs students as they may not understand its relevance to other students. Thus acceptability of SWPB4L may be reduced in situations where it is perceived by teachers as an intervention targeted to unacceptable students (behaviour needs students) who may themselves impact on the needs of mainstream peers or others, including the teacher.

### **Acceptability and SWPB4L**

Given that teacher acceptability of SWPBS is likely to be an important factor in the fidelity and effectiveness of it, the ways in which teacher acceptance of SWPB4L varies may be important to successful implementation and outcome. However, SWPB4L is a relatively new initiative of the MOE and may be subject to initial limitations experienced by other large scale initiatives described below.

Certainly the efficacy of the principles of SWPB4L have been established through the results of international studies of SWPBS and local small scale studies such as Savage et al. (2011), but the process of implementing SWPB4L has not. Any current evaluation of teacher acceptability of SWPB4L should acknowledge that what they are being measured accepting, may not in fact represent SWPB4L. Later assessments of teacher acceptability of SWPB4L once systems are fully in place may be a fairer measure of ongoing acceptability.

For example, the Comprehensive Child Development Programme (CCDP), an American programme engineered to coordinate welfare and health services to families of children aged 0 to 5 years, was not found in its initial stages of implementation to be as effective as research and expectations suggested it should (Gilliam, Ripple, Zigler, & Leiter, 2000). This is because the results may have reflected shortcomings of the evaluation methodology and immaturity of the programme rather than its potential performance and, therefore, the evaluation of the CCDP may have been too early (Gilliam et al).

“It takes some time to create an infrastructure for service delivery; recruit, train, manage, and maintain staff; establish essential community links; promote awareness of a new program; and work out various operational problems that become apparent only after a program opens its doors” (Gilliam et al., 2000, p. 7). It is possible that there are similar issues with the present status of SWPB4L.

Gilliam et al. (2000) proposed that in the study of social programmes, scientists should first establish whether a programme is in place before evaluating outcomes and attributing effectiveness. This is particularly true of newly established initiatives such as SWPB4L where initial implementation difficulties may impact on process integrity. These same difficulties may also impact on staff acceptability and these are likely to impact on integrity because, a) where staff do not feel supported to implement SWPB4L, or are b) overwhelmed by it, or c) if they don't understand and sympathise with the objectives and principles of SWPB4L, or d) perceive a lack of efficacy, due to immaturity of the systems supporting it, they are less likely to accept it, implement it with integrity, and generate desirable outcomes (Gilliam et al). Therefore, particularly at the early stages of intervention, teacher acceptability of SWPB4L could be compromised by its immaturity and this is likely to affect the fidelity of implementation.

SWPB4L is a new nation-wide initiative of the MOE using SWPBS as a template for structure but, due to the inherent complexity of SWPBS and the effort and expertise necessary to operate it, it may be subject to limitations not experienced in established SWPBS systems. These limitations are likely to be based around the immaturity of wider support systems at the district and national level to deliver supports and systems to schools and teaching staff. It has been described that even within very well supported SWPBS frameworks, 80/80 fidelity on the *SET* and optimal student outcomes may take two years to develop (Muscott et al., 2008). Therefore, present acceptability of SWPB4L will relate to its current structure and knowledge on which to base any conclusions about ongoing acceptability is limited. None-the-less, present teacher acceptability is important because it may affect ongoing teacher acceptability through affects on fidelity and outcomes that feed forward to subsequent staff perceptions. Therefore, teacher acceptability of SWPB4L should be measured and this information used by SWPB4L professionals working within schools and wider systems in the ongoing planning and implementation of SWPB4L.

### **Overall summary**

SWPB4L is a new MOE initiative designed to reduce the rates of problem behaviours of children across school environments in New Zealand schools. SWPB4L is closely based on the principles, systems, and structures of SWPBS, an American approach designed using the empirical principles of applied behaviour analysis. SWPBS is a positive approach, teaching and reinforcing desired behaviours of children using data to measure and respond to trends in school-wide behaviour. Collaboratively, teachers, students, and community members use data to design and modify effective socially valid interventions. They are supported to do this by a complex array of structures and systems, at a variety of levels through the school and MOE that ensure effective ongoing SWPB4L implementation.

High rates of acceptability of interventions are a necessary precursor for them to be adopted with fidelity and, subsequently, for them to be considered effective and socially valid. Generally, more acceptable interventions are implemented with greater fidelity. However, the relationship between acceptability and fidelity is complicated by other factors, such as ease of implementation.

Factors affecting teacher acceptability of interventions include; is the intervention suitable for mainstream classroom settings? Does it pose any unnecessary risk to the child? Does the intervention require too much teacher time? Does it have negative side effects on other children? Does the teacher possess the skill to implement the intervention according to factors such as years of teaching experience and training? Is the intervention perceived as effective? It is likely that these factors also affect teacher acceptability of SWPB4L although in ways that have not been measured. Additionally, where there is a conflict in ideologies between positive behaviour systems such as SWPB4L and often used teacher practices of punishment based student behaviour management, either with individual staff or across a school, staff may resist using the practices of SWPB4L and so implement it with low fidelity and generate poor student outcomes.

Research has found that teachers generally rate positive interventions as more acceptable than punitive interventions (Hall & Didier, 1987; Hall & Wahrman, 1988; Kazdin, 1981; Tingstrom, 1994; Turan et al., 2010; Von Brock & Elliott, 1987; Witt, Elliott et al., 1984; Witt & Martens, 1983). However, this research base of teacher acceptability of positive over punitive interventions contrasts with implementation evidence that shows schools generally respond punitively to problem behaviours. This discrepancy between what is accepted and what is implemented highlights a crucial difference between acceptability and implementation; teachers do not always implement only those interventions they find

acceptable. Teachers are therefore likely to find the positive ethos of SWPB4L acceptable and this will support, but not result, in high fidelity implementation.

SWPB4L is a relatively new initiative and subject to limitations experienced by most other new initiatives. For this reason acceptability of it maybe affected by these limitations as well as the effects of SWPB4L itself. None-the-less, it remains important to ascertain teacher acceptability of SWPB4L because they are the primary agents of implementation and their acceptability will affect the fidelity of ongoing and subsequent implementation.

### **Summary and hypotheses**

It has been demonstrated that, when implemented with high fidelity, SWPBS is effective in reducing rates of student behaviour that are undesirable to schools and society. Teacher acceptance of SWPBS is important for the development of high fidelity implementation and to generate social validity. SWPB4L is closely modelled on SWPBS and therefore has the potential to support socially desirable outcomes for students and communities. Research has found that teachers rate positive interventions as more acceptable than punitive interventions; however, this research is analogue based and has not explored teacher acceptability of SWPBS or SWPB4L. More research is therefore required to explore teacher acceptability of SWPB4L. Since low rates of teacher acceptability of interventions can be deleterious on outcomes, this study investigates if teachers in three New Zealand Intermediate schools find SWPB4L acceptable. Because teachers have been found to generally prefer positive interventions over punitive interventions, and especially for less severe behaviour, it is hypothesised that in general teachers will find SWPB4L acceptable.

H<sub>1</sub>: New Zealand teachers will find SWPB4L acceptable by a rating of 4 or above as measured by the *IRP-15*.

Secondly, demographic variables are relatively easy for schools to monitor and use to predict probable variations in acceptability across teaching staff without having to survey

teaching staff perceptions of other intervention variables related to teacher acceptability such as time required, side effects, and intervention effectiveness. If they do reliably influence staff acceptability of SWPB4L they could be a useful device for PB4L team members to use to predict weaknesses or strengths in acceptability and therefore take measures to manage it.

However, to date no research has measured the impact of these demographic variables on teacher acceptability of SWPBS or SWPB4L. This study investigates if teacher acceptability of SWPB4L relates to teacher experience, highest teaching qualification, and years since most recent qualification. This third demographic variable is an as yet untested variable in relation to acceptability of interventions but relates to variations in the content of study that may differ with years since undertaken, a variable discussed but not measured in some acceptability literature (Gal et al., 2010; Hwang & Evans, 2011). As a result of these studies and Turan et al. (2010), which have found variations in teacher acceptability of positive interventions according to teacher experience and qualifications, the second and third experimental hypotheses are formed.

H<sub>2</sub> : More experienced teachers will rate SWPB4L less acceptable than less experienced teachers as measured by the *IRP-15* and teacher report.

H<sub>3</sub> : Teachers with more recent and higher qualifications will rate SWPB4L more acceptable than teachers who most recently trained in earlier years with basic qualifications as measured by the *IRP-15* and teacher report.

## Method

### Participants

This study was conducted across three New Zealand North Island intermediate schools participating in PB4L. One further intermediate school in the same geographical area was approached for inclusion in the project but declined to participate citing time constraints. Intermediate schools cater to students between year 7 and 8 of study (11-13 years of age) and are positioned in the final 2 years of primary schooling before secondary schooling.

The sample of teachers canvassed for inclusion in the study were teachers within these schools who were consistently involved in the implementation of SWPB4L. This consisted of the total number of teachers employed in teaching positions, but also included Principals and non-teaching Deputy Principals. Table 1 presents school staff sizes and percentage participation. There were 69 potential participants with 41 returning completed questionnaires. School staff sizes were similar with a total size range of 11 teachers between smallest and largest school staff.

Table 1

#### School staff sizes and responses

	School 1	School 2	School 3	Total
Staff sampled	17	24	28	69
Response	9 (53.6%)	17 (70.9%)	15 (52.9%)	41 (59%)

School recruitment to the study was mediated by the primary researcher approaching the PB4L team leader in each school to describe the procedures and objectives of the project and the amount of time that would be required from school staff if they were to participate. The primary researcher clarified that the overall outcomes of the study would be communicated to the team leader and could be distributed to wider school staff, and could

provide useful information for school SWPB4L implementation in the form of an overall rating of school teachers' acceptability of SWPB4L in each school and across schools. It was clearly stated that school identity would remain confidential and no school was told the identity of any of the other participating schools. The same discussion was then held with the school Principal, an information sheet provided describing the procedures and objectives of the study (Appendix A), and consent was gained by the Principal signing a separate consent to access site form (Appendix B).

All three schools were part of the first cohort of New Zealand schools to be engaged by the MOE and had commenced PB4L development mid 2010. Discussions with the PB4L team leaders within each school and an MOE psychologist responsible for regional support of PB4L, suggested all three schools were at similar points of implementation and in their first year of SWPB4L rollout to students.

### **Questionnaire**

The *IRP-15* (Martens et al., 1985) is a 15 item, 6 point Likert scale questionnaire. It has a computed reliability of 0.98 (Hall & Didier, 1987). The 15 items have factor loadings from 0.82 to 0.95 on a single factor that appears to reflect a general acceptability dimension. This means that each item measures relatively more of one factor than any other. Participants rate the extent they agree or disagree with an item between 1 and 6 where a response of 1 signifies they strongly disagree and a response of 6 signifies they strongly agree. Participants are forced to agree or disagree since no "neither disagree nor agree" rating is permitted. Each item enquires differentially across five acceptability factors so that across all 15 items all factors are measured. The factors are; is the intervention suitable for mainstream classroom settings? Does it pose any unnecessary risk to the child? Does the intervention require too much teacher time? Does it have negative side effects on other children? Does the teacher possess the skill to implement the intervention? (Witt & Martens, 1983). Average responses

for a participant give their PB4L acceptability. Average ratings between 1 and 1.5 indicate strong disagreement that PB4L is acceptable to them. Average ratings of 2 +/- 0.5 indicate disagreement that PB4L is acceptable to them. Average ratings of 3 +/- 0.5 indicate slight disagreement that PB4L is acceptable to them. Average ratings of 4 +/- 0.5 indicate slight agreement that PB4L is acceptable to them, average ratings of 5 +/- 0.5 indicate at least agreement that PB4L is acceptable to them, and average ratings between 5.5 and 6 indicate strong agreement that PB4L is acceptable to them.

Three additional items on the questionnaire measured participant teaching experience, highest teaching qualification, and years since most recent teaching qualification. Teachers were asked to write their number of years of teaching experience, not including periods of one year or more away from the classroom, and years since most recent teaching qualification in the provided boxes and circle the name of the highest teaching qualification they possessed. It was important to include a minimum period of time away from the classroom to simplify and unify calculations of experience and to control for those teachers who may have taken brief periods away from the classroom for a variety of reasons. It prevented inconsistency in calculations because some teachers could potentially exclude holidays from their calculations of experience or other non-significant durations of time. A period of one year was selected for simplicity of calculation and recall by teachers.

An additional section of space was provided for participants to state any comments about PB4L and its implementation and to allow opportunity for comments regarding matters that they did not feel were covered by the questionnaire. However, the comments made were not analysed and do not contribute to the outcomes of this study. Generally comments were not made by participants and where given covered a diffuse range of topics related to PB4L.

## Procedure

An application was made to the Massey University Human Ethics Committee for ethical approval of the study. Resubmission of the application was necessary in order to increase measures of confidentiality for participants. The application was subsequently approved (August 2011).

The *IRP-15* teacher acceptability questionnaire (Martens et al., 1985) was modified to refer to PB4L (Appendix C) and included additional items inquiring about participant teaching experience, highest teaching qualification, and years since most recent teaching qualification. This was done by replacing the title “Intervention Rating Profile” with “PB4L Rating Profile,” and in each acceptability item the words “the intervention” with “PB4L.” Many school staff would not be aware of the label “school-wide PB4L” as they would not all be involved in secondary and tertiary PB4L intervention, therefore, the reference PB4L was used to reduce confusion. However, teachers would later be instructed to respond to the questionnaire as inquiring about PB4L as implemented across the school, and not for individual students or small groups of students.

A sealed container was created with a slot for survey deposit. Labels were placed around the box that clearly identified it as the location for deposit of completed questionnaires. The box was placed in a conspicuous location within a school staff room and underneath it an additional set of questionnaires and information sheets were placed. These were provided because, despite distributing questionnaires and information sheets separately to teachers, it was likely that some of these would be lost by a few staff and eliminate them from participation.

The primary researcher attended one of the weekly after school staff meetings to recruit school staff to the project. Meetings were attended on consecutive weeks in Spring 2011 in school staff rooms. Just before the meeting the primary researcher deposited a copy

of the questionnaire and an individual participant information sheet (Appendix D) in each teacher's communication box (pigeon hole.) Questionnaires were not administered in the meeting because it would have meant that absent staff members would have to be pursued and this could have been inconvenient and time consuming for participants. It also meant that teachers would hopefully feel less pressure to complete the questionnaire at that moment and could choose to do so in their privacy.

At the beginning of the meeting the Principal or PB4L team leader introduced the researcher to the staff and explained the purpose of his attendance as research into PB4L. The researcher then identified himself and his role in the school during the course of the project. This was specifically and exclusively for staff recruitment to the study and any other relationship staff may have had with the researcher was to be excluded in their decision of whether to participate.

The researcher then described the purpose of his attendance, the purpose of the project, and the value of the outcomes in potentially facilitating their school's PB4L implementation and the wider understanding of PB4L acceptability. Confidentiality was highlighted as an important feature of the project as their school would only be given overall school acceptability rating and not acceptability ratings according to demographic variables or individuals. Additionally it was clarified that the researcher had no knowledge of individual staff demographics and so would be unable to identify them from their demographic data.

The researcher described how to complete the questionnaire, and in particular the use of the Likert scale, not to incorporate periods of less than one year in calculations of teaching experience, and to only write the number of years for qualifications one had completed. The researcher then identified the location of the deposit box in the room. He asked teachers who decided to participate to complete the questionnaire as soon as possible so that he could

collect them. This was because if they were not quickly completed it was likely that they would be forgotten and participation prevented. However, with each school the deposit box was collected 7 days after the meeting. Teachers were finally given the opportunity to ask questions about the project and then thanked for giving their time.

### **Data analysis**

Responses from questionnaires were inserted into a Microsoft Excel database for storage and processing. Highest teaching qualification responses were coded as integers 1-6 according to level of qualification with “Certificate” coded as 1 and “Doctorate” coded as 6. Data were collated by schools and schools identified by the digits 1, 2, or 3. All data were sorted so that participants’ acceptability responses were stored with their demographic responses and participants were grouped by school.

Each participant’s acceptability item responses were averaged to give their PB4L acceptability rating. Participant acceptability ratings were then averaged within a school to give school acceptability, and across schools to give overall PB4L acceptability. Where item data were missing or participants had circled more than one response on the Likert scale, the response was coded as being equal to the average response so that it did not change a participant’s acceptability. Missing data were infrequent, occurring on only eight responses from a total of 615 possible responses (1.3%) and it is not believed to have significantly affected overall outcomes. Where participants circled more than one highest qualification response they were coded as having the lower because writing by the side of some responses to this item indicated that these participants were in the process of completing this qualification.

Sorted data were then transferred to SPSS for Windows, for statistical analysis. Initially, a between groups 3x4 Analysis of Variance (ANOVA) was performed to assess if the three schools significantly differed according to any of the four experimental variables.

Significant differences between schools could mean that overall PB4L acceptability was being influenced by some unidentified variables within particular schools.

Pearson's correlation ( $r$ ) and significance level were then computed between the four experimental variables and between the three demographic variables and PB4L acceptability. This calculation would indicate the presence of any relationships between variables and relationships between demographic variables and acceptability. A standard multiple regression analysis was performed to identify the extent the experimental variables predicted acceptability.

## Results

Descriptive statistics for the overall sample are located in Table 2. Means, standard deviations, and ranges are presented. Teachers across the sample had on average nearly 15 years of teaching experience and the range of scores between 38 and 2 years demonstrated that this varied considerably across the sample. This suggests that teachers with a wide variety of experiences were included in the sample. The mode highest teacher qualification was a degree with the average highest qualification very close to this. The highest qualified teacher in the sample had a postgraduate diploma and the lowest had a diploma. Finally, the similarity between years of teaching experience and years since most recent qualification indicated that on average many teachers had similar duration of teaching experience to time since they had last completed a teaching qualification. This suggests that most had not undertaken additional study during the course of their teaching careers.

Table2

### Descriptive statistics

	M	SD	Minimum	Maximum
Years of teaching Experience	14.5	10.1	2.0	38
Highest teaching qualification	2.9	0.6	2	4
Years since most recent teaching qualification	14.4	9.9	2	37

One-way Analyses of Variance (ANOVA) were conducted to determine if any differences existed between schools on the three independent variables and the dependent variable (mean acceptability ratings). Results indicated no significant differences in mean acceptability ratings [ $F(2,38) = 0.405, p = 0.670$ ], years of teaching experience [ $F(2,38) = 0.355, p = .704$ ], highest teaching qualification [ $F(2,38) = 1.154, p = 0.326$ ], and years since most recent teaching qualification [ $F(2,38) = 0.0155, p = 0.985$ ]. Therefore, the samples from

the three schools were concluded to be similar and the data were combined for all further analyses.

The mean acceptability score of 4.8 (SD = 0.7) indicates that in general teachers in the school sample found SWPB4L acceptable. The highest response was 6 which is the maximum possible response of strongly accepting. The minimum response was 3.3, which indicates even the least accepting teachers only responded that they slightly disagreed that they found SWPB4L acceptable.

Pearson's correlations ( $r$ ) and significance level between the experimental variables are presented in Table 3. No significant correlations between SWPB4L acceptability and any of the demographic variables were detected. Significant correlations were found between years since most recent teaching qualification and years of teaching experience and highest teaching qualification. Years of teaching experience was significantly related to years since most recent teaching qualification and highest teaching qualification was significantly related to years since most recent qualification. In other words, participants with higher qualifications such as a degree or postgraduate diploma had more recently achieved them and those with lower qualifications such as diplomas had achieved them longer ago.

Table 3

**Correlations ( $r$ ) and significance**

	Years of teaching experience	Highest teaching qualification	Years since most recent teaching qualification
Acceptability score	-0.21 (0.10)	0.11 (0.24)	-0.20 (0.11)
Years of teaching experience		-0.31 (0.26)	0.81 (0.00)
Highest teaching qualification			-0.53 (0.00)

The results of the multiple regression analysis with teacher acceptability as the dependent variable and years of teaching experience, highest teaching qualification, and years since most recent teaching qualification, as independent variables indicated that no demographic variable significantly predicted acceptability [ $F(3,37) = 0.596, p = 0.621$ ]. This indicates that teacher acceptability in the sample was not significantly related to the three demographic variables.

## Discussion

The purpose of this study was to measure if teachers across three schools participating in PB4L found SWPB4L acceptable. This is important because research has shown that interventions that are found to be acceptable are more likely to be implemented with fidelity (Henninger, 2010; Polloway et al., 1996) and higher fidelity implementation of school-wide interventions relates to better intervention outcomes (Gottfredson et al., 1993). Desired outcomes of SWPB4L are school-wide reductions in student problem behaviour and increases in desirable behaviour. Reductions in problem behaviours can result in increased academic engagement time for students and teachers that facilitate positive academic outcomes.

Additionally, this study investigated the relationship between teacher acceptability of SWPB4L and years of teaching experience, highest teaching qualification, and the number of years since most recent teaching qualification. Research has shown that more experienced teachers tend to be less accepting of positive behavioural strategies and used them less frequently. Also, teachers with special education experience and/or training tend to use positive strategies more often (Turan et al., 2010). It has been hypothesised that teachers with more recent qualifications will be more accepting of positive interventions (Gal et al., 2010; Hwang & Evans, 2011).

### **The implications of the acceptability ratings**

This study found that in general, teachers within the sample found SWPB4L acceptable. This means that acceptability was unlikely to be a significant barrier to SWPB4L implementation across the three sample schools. It has been demonstrated that acceptability does not determine the fidelity of teacher implementation, but it is associated with it (Mautone et al., 2009), and this means that teachers within the schools studied would be more likely to implement SWPB4L with fidelity than if they found it unacceptable. This in turn

means that these schools are more likely to experience reductions in student behaviour problems and increases in rates of desirable behaviour than if teacher acceptability was low. These increases in rates of desirable behaviour could also facilitate student academic achievement through increased academic engagement time.

There are important implications of these findings because the MOE has invested substantially into the creation and operation of PB4L, and participating schools have invested substantial monetary and personal resources into it. This study demonstrates that, at least from the point of view of staff acceptability, these efforts have not been in vain and additional resources may not be needed to remediate deficiencies in acceptability. This is despite the position of SWPB4L as a developing nationwide initiative, which is likely to be subject to a number of issues that may adversely affect its implementation and fidelity (Gilliam et al., 2000).

The finding that SWPB4L was acceptable to teachers should not encourage complacency in participating schools. The normal processes of SWPB4L that support staff acceptability, such as team driven data based intervention analysis or professional development, should be sustained. Also, the results do not imply that additional strategies and procedures that may adversely impact staff acceptability, for example those that increase staff work load, can be freely introduced. Overall, teacher acceptability of SWPB4L was 4.8, which is on the low side of acceptable, and any factors that adversely affect this could result in non-supportive levels of acceptability.

Research has shown that interventions that are acceptable are more likely to be implemented with fidelity (Henninger, 2010; Polloway et al., 1996). Research has also found that the more acceptable an intervention, the more likely that outcomes from it will be positive (Henninger, 2010), particularly school-wide interventions (Gottfredson et al., 1993). This means that while the acceptability level of SWPB4L in the three schools was just

acceptable and therefore likely to be supportive of implementation, SWPB4L implementation and outcomes could be augmented by strategies that increase staff acceptability. If average ratings of acceptability were closer to “strongly agree”, PB4L team members and school leaders could be confident that teacher acceptability was supporting SWPB4L implementation and positive student outcomes were fully supported.

Schools within the sample should therefore look at employing strategies that have been demonstrated by research to increase teacher acceptability of SWPB4L and to reduce barriers to it. These could include reducing the workload required to implement SWPB4L strategies (Witt & Martens, 1983; Witt, Martens et al., 1984). Barriers identified by research were; lack of administrative direction and leadership, scepticism that the universal intervention was needed, hopelessness about change, philosophical differences, staff feelings of disenfranchisement from each other, the administrator, or the mission of the school (Lohrmann et al., 2008). Therefore, school leaders should prioritise their involvement with SWPB4L and emphasise to teaching staff its importance to the school and their importance to SWPB4L. To impact on other barriers, another strategy may be employed that has been found to increase the acceptability of SWPBS, namely professional development that is targeted to SWPB4L (Savage et al., 2011).

New Zealand teachers should receive professional development that is consistent with the aims, policies, and practices of the school and wider systems in which they occur (Timperley, Wilson, Barrar, & Fung, 2007). Effective professional development is facilitated when whole school systems orchestrate and assess quality teaching through frameworks of collegiate support (Andrews & Clarke, 2005). Colleagues can assess, teach, demonstrate, and learn from each other to develop systematic implementation of evidentially effective practices and to overcome feelings of disenfranchisement from each other. This means that teachers within these schools could receive professional development about the ways

SWPB4L is operated in school and beyond for enhancement of SWPB4L acceptability. The rationale behind SWPB4L could also be revisited or expanded. Teachers should be encouraged to assess and support each other to implement SWPB4L processes. A specialist such as the PB4L regional coordinator could be involved in these processes to provide evidence of effectiveness and to advise on effective practice. This would be over and above the coordinator's prior involvement in promoting and supporting effective strategies.

### **Implications of relationship of acceptability with the demographic variables**

This study found no significant relationship between teacher acceptability of SWPB4L with any of the demographic variables, together or in isolation. This means that in the schools that formed the sample, teacher acceptability of SWPB4L was not affected by years of teaching experience, highest teaching qualification, or years since most recent teaching qualification. Therefore the sample schools would not be able to use teacher experience, level of teacher qualifications, or years since most recent qualification to predict the acceptability of SWPB4L of their teachers. These schools would also not be able to selectively use these variables to target groups of teachers in an effort to optimise their acceptability of SWPB4L (such as providing extra professional development).

That this study did not detect a significant relationship between acceptability and any of the demographic variables suggests that these variables may not significantly influence teacher acceptability of SWPB4L. Research has found differences in acceptance of positive strategies according to experience and that teachers with special education experience and/or training used positive strategies more often than those without (Turan et al., 2010). Other research has found differences in teacher attitudes towards inclusion of children with disabilities according to teacher experience (Gal et al., 2010; Hwang & Evans, 2011). However, these studies did not specify PBS or SWPBS for teacher consideration and it is possible that the distinct structure of SWPB4L does not interact with the demographic

variables in the same ways. Additionally, the above studies involved teachers in different countries, of different cultures and it is possible that teacher culture interacts with teacher acceptability and the demographic variables differently with New Zealand teachers in ways that weaken an acceptability/demographic relationship.

### **Limitations**

Caution is warranted in generalising conclusions from these results to those of the wider population of schools participating in PB4L. Sampling was from schools that served a distinct age group of children in only three schools. It is possible that these schools differ from other schools in ways that deviate their SWPB4L acceptability from each other. However, recent Education Review Office (ERO) reports give no indication of ways that these schools significantly differ from New Zealand Intermediate schools in general.

The internal validity of self report data, such as that from questionnaires, can be limited (Coolican, 2004). It is possible that teachers participating in this study responded artificially to increase their acceptability responses in order to develop an acceptability outcome that was more desirable to them or others. During the project presentation to participants it was emphasised that responding was confidential and this was done in order to minimise skewed responding resulting from social desirability effects. However, these effects cannot be categorically eliminated from the results presented here.

It is possible that validity of the variable “number of years of teaching experience” in predicting teacher SWPB4L acceptability and other variables was challenged by the calculation method. The omission of a period of 1 year or less absence from teaching experience could have systematically shifted calculations of duration of teacher experience upwards in a way that prevented a significant relationship between the two variables being detected.

The overall percentage of response from the population sampled was 59% and, for each of the three schools; 53.6%, 70.9%, and 52.9% respectively. This means that, overall, 41% of teachers within the three schools chose not to participate in the study. Their reasons for this were unknown; it could have related to lack of presence at the project presentation in the school staff room and therefore lack of understanding about the project, or it could have related to another factor such as losing the questionnaire or being too busy to complete it. It is possible that some staff chose not participate in this study due to reasons that relate to their acceptance of SWPB4L. If this were the case, it is possible that their lack of response skewed the significance of teacher acceptance of SWPB4L or skewed the relationship between SWPB4L acceptability and the other experimental variables in ways that invalidate the conclusions of the study. It would be interesting to undertake further research to explore the non-participants reasons for non-responding in order to understand if, and by how much, their lack of participation may have affected the study outcomes.

### **Further study**

Teacher acceptability of SWPB4L represents a part of what is important for SWPB4L implementation. Further study should be designed to investigate how SWPB4L acceptability actually relates to implementation. Evidence shows that interventions that are acceptable are more likely to be implemented with fidelity (Henninger, 2010; Polloway et al., 1996). Given that this study demonstrated that teachers have found SWPB4L acceptable in 3 Intermediate schools, it would be important to identify if acceptability related to the fidelity of SWPB4L implementation in these schools and others. It would be important to recruit more schools for measurement of teacher acceptability since the three participating schools would not provide sufficient statistical power to confidently detect relationships. Fidelity of SWPB4L implementation is measured by the *SET* and outcomes of this tool in each school should be compared to school's SWPB4L acceptability for a reliable comparison.

In the same way as SWPB4L acceptability is likely to be part of what is important for developing high fidelity implementation, fidelity of school-wide intervention is part of what is important for developing positive outcomes (Gottfredson et al., 1993). Teacher acceptability of interventions relates to outcomes for reading (Henninger, 2010) and school-wide interventions (Gottfredson et al., 1993). Therefore, further study should be designed to measure the extent to which teacher SWPB4L acceptability relates to better student outcomes as measured by reductions in ODR. Once again, a larger sample size of schools would be required in order to confidently use teacher SWPB4L acceptability to predict behavioural outcomes.

This study did not find that acceptability of SWPB4L significantly related to teacher experience, highest teaching qualification, or years since most recent teaching qualification. However, other demographic variables may impact on teacher acceptability and these should be identified through further research in schools. Teachers in this study ranged in their acceptability of SWPB4L between strongly accepting and slightly disagreeing that they accepted it. It would be valuable to identify demographic variables that do impact on acceptability so that schools can use these to target staff for support in development of SWPB4L acceptance.

Other variables are also likely to relate to teacher acceptability of SWPB4L and teachers' ratings of how effective they think SWPB4L is, is one variable likely to impact on acceptability. This variable relates to staff feelings of hopelessness of change (Lohrmann et al., 2008) and perceptions of intervention effectiveness that impact on acceptability of SWPBS and other interventions (Tingstrom, 1990, 1994; Turan et al., 2010). A simple tool would need to be developed in order for research to identify the ways staff vary according to their perceptions of SWPB4L effectiveness. An outcome of this research that could help schools to target staff for support in increasing SWPB4L acceptance would be a simple and

effective tool for use by PB4L team members to assess staff perceptions of SWPB4L effectiveness.

Also likely to impact on teacher acceptability of SWPB4L is the teacher's perception of where the cause of behaviour difficulties originate and who is responsible for making changes to the behaviour, the teacher, the students or their parents. It has been shown that many teachers feel that behaviour problems originate in the students or their families and so remove themselves from responsibility to make changes to improve the behaviour (Johansen, 2010; Prochnow, 2006). These teachers who believe that factors outside their control are the origin of behaviour problems are more likely to resist adaptations to their day-to-day teaching practice as a result of SWPB4L implementation. They may not then accept that it is useful or important. Research is needed to identify if this variable is important in teacher acceptability of SWPB4L and if so, how it can be assessed by schools. Research is then likely to be required to develop a simple tool for schools to identify the way staff vary according to perception of where the cause of behaviour difficulties originate and who is responsible for making changes to the behaviour.

Years since most recent teaching qualification was a previously untested variable, hypothesised to relate to teacher acceptance of positive interventions and students with behaviour needs (Gal et al., 2010; Hwang & Evans, 2011). Results of this study showed that it did not significantly relate to teacher acceptance of SWPB4L in the 3 sample schools. However, the paucity of teachers within the experimental sample who had studied during their teaching practise means that the present research did not significantly advance understanding of how this variable relates to teacher acceptability of SWPB4L. Further study of this variable should investigate its merit as a factor in teacher acceptability of SWPB4L and other positive interventions.

## **Conclusion**

This study found that in general, teachers within the sample found SWPB4L acceptable. This means that acceptability was unlikely to be a significant barrier to SWPB4L implementation across the 3 sample schools and so they would be more likely to implement SWPB4L with fidelity than if they found it unacceptable. This in turn means that these schools are more likely to experience reductions in student behaviour problems and increases in rates of desirable behaviour than if teacher acceptability was low.

This study found no significant relationship between teacher acceptability of SWPB4L and with any of the demographic variables, together or in isolation. This means that in the schools that formed the sample, teacher acceptability of SWPB4L was not affected by years of teaching experience, highest teaching qualification, or years since most recent teaching qualification.

These are important conclusions as they imply that additional resources may not be needed to remediate deficiencies in acceptability. However, teachers did not generally strongly agree that SWPB4L was acceptable and so additional measures to improve teacher acceptability could facilitate SWPB4L fidelity and outcomes.

This study demonstrates that teachers can find SWPB4L acceptable, which increases the possibility of a positive impact of the nationwide initiative. It also means that SWPB4L can be held to be a valid and socially important intervention, one that teachers can accept in New Zealand schools.

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## Appendix A



**MASSEY UNIVERSITY**  
 COLLEGE OF EDUCATION  
 TE KUPENGA O TE MĀTAURANGA

To what extent do certain demographic variables affect teacher acceptability of Positive Behaviour for Learning?

### **INFORMATION SHEET**

#### **Researcher Introduction**

This study is being conducted by a researcher named Christopher Ratcliffe, who is a student of the Master of Educational Psychology programme at Massey University. The purpose of this research project is to measure teaching staff acceptability of School Wide Positive Behaviour for Learning (PB4L) that XXXXXX Intermediate School is participating in.

#### **Project Description and Invitation**

XXXXXX Intermediate School is invited to take part in a research study of staff acceptability of School Wide Positive Behaviour for Learning (PB4L).

This research enquires how teacher acceptability of (PB4L) is affected by years of teaching experience, highest teaching qualification and years since most recent teaching qualification. PB4L implementation is governed by how whole school staff assesses, communicates, and responds to difficulties with student behaviour in accordance with the systems developed within the school. If individual staff members are not accepting of PB4L evidence shows that they may not implement school wide interventions with the required fidelity to maximise changes in student behaviour.

There is evidence in the scientific literature that teachers may vary in their attitudes towards students with disabilities according to their years of teaching experience and their highest teaching qualification. How these variables affect PB4L implementation is unknown and I am hoping to investigate this.

#### **Intended outcomes of the study**

It is intended that the results of this study will contribute to the evidence base regarding which variables affect acceptance and implementation of PB4L. Where high rates of teacher acceptance of PB4L are found in your school this can support PB4L team and staff confidence to continue as planned with PB4L interventions. Where low rates of teacher acceptance are found in your school this may highlight a need for the PB4L team to make further efforts to increase professional understanding of the relevant issues and the concepts behind PB4L.

There are no expected adverse outcomes of the study.

#### **Project Procedures**

The researcher requests to meet teaching staff at a school weekly staff meeting to present the background to the study, its aims, answer questions and request participation.

In the meeting it will be clarified that responses are entirely confidential and will not be reported back to school except for overall school staff level of acceptability. No school demographic/acceptability data will be reported back to school.

A widely used 15item adapted questionnaire will be administered to staff with items reporting teaching experience, years since most recent teaching qualification and highest teaching

qualification – certificate, diploma, degree, postgraduate diploma, masters degree, or doctorate.

The questionnaire will be left in staff communication boxes (pigeon holes) and an enclosed response box with a slot for depositing responses will be left nearby.

Overall within school acceptability values will be reported back to you for your information and use.

It should be noted that your participation in this study is voluntary. This means that your decision of whether or not you want XXXXXX Intermediate School to be in the study will be respected.

My role at Special Education as a Special Education Advisor is entirely independent of this study. As a Special Education Advisor I can work within the school with students who have behaviour needs but this role has no relation to the implementation or measurement of PB4L. Your decision to participate or not will not affect you or your school's relationship with Special Education and no one at Special Education will treat you differently if you decide not to be in the study.

### **Data Management**

Data will not be available to anyone outside the research team and will be stored on a personal memory storage device and computer.

Questionnaires will be stored in a locked filing cabinet. Only the researcher and his supervisor Associate Professor Dr Little from Massey University will have access to data. It will always be kept in a secure location. Data will be deleted at the end of 2012.

### **Participant's Rights**

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

- withdraw participation from the study at any time
- ask any questions about the study at any time during participation;
- be given access to a summary of the project findings when it is concluded.

### **Project Contacts**

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via 06 831 0674 or [chris.ratcliffe@minedu.govt.nz](mailto:chris.ratcliffe@minedu.govt.nz) or for Dr Little 09 4140800 ext 9658 or [s.little@massey.ac.nz](mailto:s.little@massey.ac.nz).

The researcher will give you a copy of this form to keep.

### **Compulsory Statements**

#### **Committee Approval Statement**

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application \_\_\_/\_\_\_ (insert application number). If you have any concerns about the conduct of this research, please contact Dr Ralph Bathurst, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 9570, email [humanethicsnorth@massey.ac.nz](mailto:humanethicsnorth@massey.ac.nz).

## Appendix B



**MASSEY UNIVERSITY**  
 COLLEGE OF EDUCATION  
 TE KUPENGA O TE MĀTAURANGA

## To what extent do certain demographic variables affect teacher acceptability of Positive Behaviour for Learning?

### **PARTICIPANT CONSENT FORM – XXXXXX INTERMEDIATE SCHOOL**

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I give consent for the researcher to approach XXXXXX School Staff to provide information regarding, and to seek participation in, the study.

**Signature:**

.....

**Date:**

.....

**Full Name – printed**

**Position**

.....

## Appendix C

### PB4L Rating Profile

Thank you for taking the time to complete this questionnaire. Your responses may help in the development of understanding around what can best make PB4L effective for teachers and students.

The purpose of this questionnaire is to obtain information about your opinions regarding the effectiveness of PB4L. PB4L can be used by teachers to manage the behaviour of school children.

You have the right to decline to answer any part of this questionnaire.

#### Demographic Information

1. Please write your number years of teaching experience, not including periods of one year or more away from the classroom.

2. Please circle your highest teaching qualification

Certificate, Diploma, Degree, Postgraduate diploma,  
Masters Degree, Doctorate

3. Please write the number of years since your most recent teaching qualification.

#### Questionnaire

Please circle the number that best describe your agreement or disagreement with each statement.

- 1 = Strongly Disagree  
2 = Disagree  
3 = Slightly Disagree  
4 = Slightly Agree  
5 = Agree  
6 = Strongly Agree

- |   |             |
|---|-------------|
| 1. PB4L would be an acceptable intervention for children's problem behaviour. | 1 2 3 4 5 6 |
| 2. Most teachers would find PB4L appropriate for behaviour problems           | 1 2 3 4 5 6 |
| 3. PB4L should prove effective in changing children's behaviour problems.     | 1 2 3 4 5 6 |
| 4. I would suggest the use of PB4L to other teachers.                         | 1 2 3 4 5 6 |
| 5. Children's behaviour problems are severe enough to warrant use of PB4L.    | 1 2 3 4 5 6 |
| 6. Most teachers would find PB4L suitable for behaviour problems.             | 1 2 3 4 5 6 |

- 7. I would be willing to use PB4L interventions in the classroom. 1 2 3 4 5 6
- 8. PB4L would not result in negative side-effects for the child. 1 2 3 4 5 6
- 9. PB4L would be appropriate for a wide variety of children. 1 2 3 4 5 6
- 10. PB4L is consistent with prior interventions I have used in the classroom. 1 2 3 4 5 6
- 11. PB4L is a fair way to handle children's behaviour problems. 1 2 3 4 5 6
- 12. PB4L is reasonable for behaviour problems. 1 2 3 4 5 6
- 13. I like the procedures used in PB4L. 1 2 3 4 5 6
- 14. PB4L is a good way to handle children's behaviour problems. 1 2 3 4 5 6
- 15. Overall, PB4L would be beneficial for children. 1 2 3 4 5 6

If you would like to make any comments regarding PB4L and its implementation, please include them below.

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Thank you very much for taking the time to complete this questionnaire.

## Appendix D



**MASSEY UNIVERSITY**

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TE KUPENGA O TE MĀTAURANGA

To what extent do certain demographic variables affect teacher acceptability of  
Positive Behaviour for Learning?

### **INFORMATION SHEET**

#### **Researcher Introduction**

This study is being conducted by a researcher named Christopher Ratcliffe, who is a student of the Master of Educational Psychology programme at Massey University. The purpose of this research project is to measure teacher acceptability of School Wide Positive Behaviour for Learning (PB4L).

#### **Project Description and Invitation**

You are invited to take part in a research study of teacher acceptability of School Wide Positive Behaviour for Learning (PB4L).

This research enquires how teacher acceptability of (PB4L) is affected by years of teaching experience, highest teaching qualification and years since most recent teaching qualification across three Intermediate Schools.

There is evidence that teachers may vary in their attitudes towards students with disabilities according to the same variables. How these variables affect PB4L acceptability is unknown and I am hoping to investigate this.

#### **Intended outcomes of the study**

It is intended that the results of this study will contribute to the evidence base regarding which variables affect acceptance and implementation of PB4L. The average rating for teacher acceptability of PB4L at your school may assist your PB4L team to consider how PB4L is implemented at your school. No one will be able to see how teacher acceptability of PB4L at your school varies according to the demographic variables. This means that your responses cannot be identified by anyone.

There are no expected adverse outcomes of the study.

#### **Project Procedures**

It should be clarified that responses are entirely confidential and, except for overall school staff acceptability, will not be reported back to school. No school demographic/acceptability data will be reported back to school. Demographic/acceptability data will only be reported across schools.

You will receive a widely used 15item adapted questionnaire with items reporting teaching experience, years since most recent teaching qualification and highest teaching qualification – certificate, diploma, degree, postgraduate diploma, masters degree, or doctorate.

The questionnaire will be left in your communication box (pigeon holes) and an enclosed response box is provided nearby for depositing responses.

Please ensure that you do not identify yourself on the questionnaire by writing your name.

It should be noted that your participation in this study is voluntary. My role at Special Education as a Special Education Advisor is entirely independent of this study. As a Special Education Advisor I can work within your school with students who have behaviour needs

but this role has no relation to the implementation or measurement of PB4L. I have no access to or knowledge of any staff member's attitudes towards PB4L or their demographic information therefore it is impossible for me to identify your responses on the questionnaire.

### **Data Management**

Data and questionnaires will not be available to anyone outside the research team. It will always be kept in a secure location. Data will be deleted at the end of 2012.

### **Participant's Rights**

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

- ask any questions about the study at any time during participation;
- be given access to a summary of the project findings when it is concluded.

### **Project Contacts**

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via 06 831 0674 or [chris.ratcliffe@minedu.govt.nz](mailto:chris.ratcliffe@minedu.govt.nz) or for Dr Little 09 4140800 ext 9658 or [s.little@massey.ac.nz](mailto:s.little@massey.ac.nz).

### **Compulsory Statements**

#### **Committee Approval Statement**

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application \_\_\_/\_\_\_ (insert application number). If you have any concerns about the conduct of this research, please contact Dr Ralph Bathurst, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 9570, email [humanethicsnorth@massey.ac.nz](mailto:humanethicsnorth@massey.ac.nz).