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Abstract

Classroom management underpins effective teaching and positively influences student learning outcomes. Proactive classroom management, which emphasises the prevention of problem behaviours, fits within a whole-school approach to positive behaviour support. In Queensland, many state schools are using Positive Behaviour for Learning as a framework for implementation of whole-school positive behaviour support. A number of key classroom management practices aligning with whole-school positive behaviour support have long been known, and are deemed to be evidence based. Yet, both locally and internationally, policy-makers, education systems, and the wider community are increasingly concerned by the disengagement from learning by students, the underuse of research-informed classroom management practices by teachers, and the level of problem behaviour in schools.

This research set out to investigate the classroom management practices which Queensland state secondary school teachers reported using in their classrooms, and the perceived frequency of use of 14 practices drawn from the critical features of effective classroom management identified in a systematic literature review of evidence-based practices for classroom management (Simonsen, Fairbanks, Briesch, Myers, & Sugai, 2008). In addition, the research aimed to examine influences on teacher practice and to identify challenges facing secondary school teachers with an evidence-based approach to classroom management.

The mixed-methods study used a two-phase design which first established broad trends in reported teacher implementation of classroom management practices, before a more in-depth exploration of themes in the second phase. In Phase 1, over 500 state secondary school teachers responded to a survey about their use of classroom management practices.
Quantitative data from this phase were analysed using descriptive statistics and a Bayesian regression analysis. In Phase 2, semi-structured phone interviews were conducted with 26 of the surveyed teachers. A thematic analysis was then undertaken to identify key themes in relation to teacher use of classroom management practices and challenges to the consistent implementation of proactive, evidence-based classroom management practices in secondary schools.

Overall findings showed that the practices which teachers reported using most frequently were setting expectations and boundaries, being consistent with routines, and delivering sanctions. Teachers also perceived that they were using 12 of the evidence-based practices at high frequency rates. Lower levels of use were reported across the entire sample for two of the practices: use of a classroom reward system and provision of a 4:1 acknowledgment to correction ratio. Teachers not working in a school implementing Positive Behaviour for Learning, or without good understanding of the principles of Positive Behaviour for Learning, reported comparatively lower levels of use of these two practices. Findings from the phone interviews indicated that teachers had only a general understanding of evidence-based practices for classroom management. In addition, several recurring themes in relation to challenges with consistent implementation of a proactive approach to classroom management were identified. In particular, inadequate pre-service preparation, poor teacher induction processes, and limited access to ongoing professional development were identified as challenges. School policies and procedures which focused on punishment of problem behaviour, lack of classroom management support from administration, undifferentiated curriculum, student disengagement, and inadequate resourcing also emerged as implementation barriers.
Findings from this study have a number of important implications for policy, practice, and future research. There is an urgent need to reshape the discourse around behaviour in Queensland schools to promote positive behaviour support and underscore the importance of proactive classroom management for improved student outcomes. There is also a clear need for improvements to pre-service teacher training, new teacher induction processes, and access to quality professional development in classroom management. Importantly, this research confirms the need for implementation support to be provided to schools, especially through provision of ongoing coaching to build teacher knowledge and capability in use of proactive classroom management practices. This was the first Australian study to examine teacher-reported use of the evidence-based practices for classroom management which align with a whole-school framework for positive behaviour support. Future Australian research is needed to explore more fully how Positive Behaviour for Learning is being implemented in schools.
Signed Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person, except where due reference is made in the thesis itself.

Signature:

Lorna Hepburn

MEd, MA (Hons)
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LIST OF ACRONYMS

(in alphabetical order)

ABA
  Applied Behaviour Analysis
DoE
  Department of Education (Queensland)
EBP(s)
  Evidence-based practice(s)
ESCM
  Essential Skills for Classroom Management
GLM
  Generalised linear model
HOD
  Head of department
HOSES
  Head of special education services
HPE
  Health and physical education
IT
  Information technology
LOTE
  Language other than English
MTS
  Multi-tiered system
NSW
  New South Wales
OSEP
  Office of Special Education Programs
PBIS
  Positive Behavioral Interventions and Supports
PBL
  Positive Behaviour for Learning
PD
  Professional development
SWPBS
  Schoolwide Positive Behavior Support
USA
  United States of America
WWC
  What Works Clearinghouse
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CHAPTER 1: INTRODUCTION

Classroom management is widely acknowledged to be one of the key components of effective teaching (e.g., Marzano, Marzano, & Pickering, 2003; Oliver & Reschly, 2007; Wang, Haertel, & Walberg, 1993), as well as being one of the biggest challenges facing teachers (Alter & Haydon, 2017; Queensland College of Teachers, 2015). In a systematic review of the literature on universal classroom management programs, Oliver, Wehby, and Reschly (2011) concluded that classroom management practices have a positive effect on decreasing problem behaviour in the classroom. Student learning suffers in the absence of good classroom management because effective instruction cannot occur in classrooms which are chaotic or lacking in structure and support. A lack of effective classroom management can also impact negatively on teachers, increasing teacher stress (Reinke, Stormont, Herman, Wachsmuth, & Newcomer, 2015; Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010) and potentially creating a negative cycle of increasing punitive sanctions and escalating rates of student misbehaviour (Graham, 2017). Effective classroom management goes beyond simply establishing a sense of order or control; it requires the establishment of positive teacher-student relationships, and an understanding of the instructional practices and environmental modifications which go hand-in-hand with classroom management practices to contribute to effective teaching and learning (Marzano, 2003).

Student misbehaviour impacts negatively on student learning outcomes (Algozzine, Wang, & Violette, 2011; Angus et al., 2009), and may also lead to fewer positive interactions with teachers and opportunities to respond (Stormont, Reinke, & Herman, 2013; Sutherland, Lewis-Palmer, Stichter, & Morgan, 2008). Effective classroom management is essential so that teachers and students can focus on teaching and learning. Research has demonstrated the
link between social and academic outcomes, with low-level disruptions and off-task behaviours being inversely related to academic outcomes (Coleman & Webber, 2002; McEvoy & Welker, 2000; Sutherland et al., 2008). Engagement in learning activities is seen as a necessary prerequisite to improvements in academic outcomes. While this may seem apparent, it underlines the importance of effective classroom management which is the foundation for effective instruction and curriculum delivery (Marzano et al., 2003).

**Preamble**

A search for “classroom management” in any educational database will yield thousands of journal articles and text books dedicated to this topic. The components of effective classroom management appear to be well documented and understood, with a small number of key practices established and agreed upon by scholars and practitioners. On the surface, it may appear that there is no more to be said about classroom management in schools. The effective practices are well known, and the associated positive outcomes, such as decreases in frequency and severity of problem behaviours and increases in academic engagement, have been reported over many years, in many school contexts, across many studies (e.g., De Pry & Sugai, 2002; Emmer, Evertson, & Anderson, 1980; Gable, Hester, Rock, & Hughes, 2009; Gunter, Coutinho, & Cade, 2002; Kern & Clemens, 2007; Marzano et al., 2003; Simonsen, Fairbanks, Briesch, Myers, & Sugai, 2008). Still, concerns in relation to classroom management have not disappeared. Both locally and internationally, policymakers, education systems, and the wider community are increasingly concerned by the disengagement from learning by students, the underuse of research-informed classroom management practices by teachers, and the level of problem behaviour in schools (Armstrong, 2018; Ball, Maguire, & Braun, 2012; Scott, 2017).
This introductory chapter outlines the research problem by presenting the current situation in Australia in relation to classroom management in schools. In recent years, concerns have been raised about the problem behaviours regularly encountered in schools, their effects on student outcomes, and the systemic failure of schools to use a positive, proactive approach to supporting student behaviour. The degree of support provided to teachers to help them develop skills and confidence with classroom management has also come under increasing scrutiny.

**Problem Behaviour in Australian Schools**

There are some recurring themes which emerge in relation to student behaviour in Australian schools. To begin with, the sometimes sensationalist headlines about poor student behaviour in schools bear little resemblance to the day-to-day challenges reported by teachers. In fact, disengagement from learning is surfacing as the main factor impacting negatively on student outcomes, and of the most concern to teachers. Disengagement is even more likely to occur for students facing additional challenges as a result of disabilities, disorders, or social-emotional issues. Student disengagement is exacerbated by the exclusionary disciplinary practices often used by schools in response to ongoing problem behaviours. Reports suggest that a lack of preparation, training, and support for teachers in managing student behaviour also contributes towards the lack of a consistent, evidence-based approach to classroom management in schools.

There is a common perception that student behaviour in schools is deteriorating, with high rates of non-compliance and aggression. While a significant amount of time in schools is spent responding to challenging behaviours (Office of the Western Australian Auditor General, 2014) and student misbehaviour is a frequent topic of news reports (e.g., Armstrong,
research from Australia shows that the main behavioural issues facing teachers are actually less intense, but nonetheless concerning, behaviours such as disruption and disengagement from learning. In a large-scale survey of primary and secondary school teachers in South Australia, Sullivan and colleagues reported that the main problem behaviours encountered by teachers on a daily basis were “low-level disruptive and disengaged behaviours” such as talking out of turn and avoiding school work (Sullivan, Johnson, Owens, & Conway, 2014, p. 48). These findings align with previous research undertaken in Australia and overseas that found the main behaviour problems facing teachers were relatively minor in nature, such as talking and inattention (Beaman, Wheldall, & Kemp, 2007; Crawshaw, 2015).

Increasingly, attention in Australian schools is turning to the problem of student disengagement (Australian Institute for Teaching and School Leadership, 2013; Goss, Sonnemann, & Griffiths, 2017). Disengagement can be difficult to define (Australian Institute for Teaching and School Leadership, 2013) but encompasses behaviours such as not starting or finishing tasks, being easily distracted from tasks, and failing to participate in classroom activities. While disengagement from learning and low-level disruptive behaviours are not as severe as some other, less frequent, behaviours, they still impact negatively on student learning and on teacher well-being (Geving, 2007; Hastings & Bham, 2003). An Australian study, known as the Pipeline Project (Angus et al., 2009), tracked students in West Australian schools across a 4-year period and found that 20% were “disengaged” (students who were not aggressive or non-compliant, but who were not connected to their school work), 12% were classified as “low-level disruptive” (students with a range of less intense problem behaviours such as calling out and interrupting learning), and 8% were characterised as “uncooperative” (students demonstrating aggressive or non-
compliant behaviours). Students identified in this way were shown to perform below their peers in literacy and numeracy. Recent student survey data from NSW confirms this finding, indicating that students are at least six months ahead of their peers academically when they are positively engaged, defined as being well behaved in class and being in classrooms with teachers that make effective use of learning time (NSW Department of Education, 2017a).

Several educational jurisdictions in Australia encourage schools to manage problem behaviour by taking a whole-school approach to behaviour support, through implementation of Schoolwide Positive Behaviour Support (SWPBS). Many schools in Australia have adopted SWPBS, with state education departments in Queensland, New South Wales, and Victoria endorsing the framework (NSW Department of Education, 2017b; Queensland Department of Education, 2019b; Victoria Department of Education and Training, 2019). In Queensland, SWPBS is known as Positive Behaviour for Learning (PBL), and is recommended in state educational policy as a whole-school framework to increase positive behaviour and contribute towards the development of a supportive school environment (Queensland Department of Education, 2019). PBL in Queensland state schools promotes a positive approach to student behaviour, with a focus on preventing the majority of problem behaviours alongside an instructional approach to the correction of problem behaviours (Queensland Department of Education, 2019). PBL aims to provide support and intervention to enable all students to be successful, reducing the need for exclusionary practices which have been shown to be ineffective in reducing problem behaviours (T. J. Lewis, Sugai, & Colvin, 1998; Skiba, 2013). Almost half of Queensland state schools have received initial PBL training, with 42% considered to be implementing PBL (Deloitte Access Economics, 2017). However, to date there is little evidence that adoption of PBL has increased use of proactive classroom management practices or

Increasingly, parents and student advocates have voiced concerns about the use of punitive disciplinary practices in Australian schools which adversely impact students, especially those already experiencing disadvantage or barriers to learning such as disability or experience of trauma. In addition, state educational jurisdictions have sought to rein in rising rates of suspensions and exclusions. Concerns in relation to disciplinary practices in schools have led to Ombudsman reports in Victoria and NSW and the commissioning of an independent review in Queensland. All three reports found an over-reliance on exclusionary discipline such as suspensions and expulsions, and limited use of positive behaviour support practices promoted in the PBL framework. The Queensland review (Deloitte Access Economics, 2017) focused specifically on students with disability and recommended more effective implementation of PBL as a whole-school framework for positive behaviour support, and more training and capacity building in behaviour management for teachers and school leaders. The need for more support for behaviour management was also highlighted in the Victorian report (Victorian Ombudsman, 2017), which noted that many schools seemed ill-equipped to provide support to students with high needs. This report also drew attention to the negative life experiences and trajectories often experienced by those children receiving exclusionary disciplinary sanctions.

The NSW inquiry looked at behaviour management in both the government and non-government sectors, with a specific focus on vulnerable groups including students with a disability, indigenous students, and students in out-of-home care. The subsequent report supported the adoption of the PBL framework in schools, but found a discrepancy between the reported implementation of PBL and the actual practices used in schools, recommending
increased oversight of PBL implementation in order to improve implementation fidelity (NSW Ombudsman, 2017). Consistent with reports from other jurisdictions, this one also noted limited expertise in schools in an evidence-based approach to behaviour management and recommended improved professional development, including coaching and mentoring, for staff in schools.

Inadequacies in the preparation and support provided to teachers for classroom management have been noted by researchers (Ingvarson, Beavis, Kleinhenz, & Elliott, 2004; O'Neill & Stephenson, 2011, 2014), while teachers themselves rate support with student behaviour as one of their greatest needs (Queensland College of Teachers, 2013). A report on the attrition of recent teaching graduates documented an increasing trend in newly qualified teachers leaving the profession, with stress in relation to student behaviour given as a common reason for leaving (Queensland College of Teachers, 2013). Limited access to professional development and lack of induction support were noted as contributing factors. Similar concerns were recognised in the Action Now: Classroom Ready Teachers report on initial teacher education courses in Australia, handed down in 2014 by the Teacher Education Ministerial Advisory Group. This report called for better preparation of teachers, including more effective school placements and induction processes and the inclusion of evidence-based content in teacher education courses. Since that time the Australian Institute for Teaching and School Leadership (AITSL) has developed professional standards outlining what beginning teachers should know and be able to do to create and maintain safe and supportive learning environments (Australian Institute for Teaching and School Leadership, 2016).

Several other Australian reports have highlighted the need for better access to professional development for classroom management. A Western Australian report found that
schools were dealing with a range of problem behaviours and that professional development in classroom management, while available, was poorly targeted. It also found that behaviour management support for schools was lacking, with many schools not having access to expertise or opportunities for capacity building in behaviour support (Office of the Western Australian Auditor General, 2014). A recent Queensland school improvement report also highlighted a need for more training in classroom management in some schools (Queensland Department of Education, 2017), while a Grattan Institute report called for better teacher preparation in classroom management and for evidence-based practices to be included in teacher education courses (Goss et al., 2017). This report also recommended better ongoing classroom management support for classroom teachers, including opportunities for observation and feedback and access to quality professional development.

Researchers, policy-makers, and practitioners agree on the importance of effective classroom management for positive student learning outcomes. The components of effective classroom management are well established, yet despite the ready availability of information on evidence-based classroom management practices, consistent implementation of proactive classroom management, using proven research-informed practices, remains a concern. Taken together, recent Australian reports point to the importance of actively engaging students in learning and the need to provide better support to classroom teachers for proactive classroom management. The present study is therefore timely in its focus on teacher knowledge and use of evidence-based practices (EBPs) for classroom management, and examination of any impacts on teacher practice of PBL implementation in schools. A better understanding of current teacher practice, and the factors impacting on the classroom management strategies used by teachers, will help to formulate the actions needing to be taken to improve outcomes
for both students and teachers, through the enactment of a consistent and proactive approach to behaviour in schools.

**Aim and Significance of the Study**

The primary aim of this research was to investigate classroom management practices in Queensland state secondary schools to determine the classroom management practices which teachers reported using, and the extent of use of practices identified in the research. A secondary aim of the research was on whether schoolwide implementation of PBL, or knowledge of the PBL framework, resulted in greater reported use of EBPs for classroom management. Finally, personal and organisational factors impacting on teachers’ implementation of EBPs for classroom management were explored in order to establish challenges to consistent implementation of EBPs for classroom management. This research stemmed from a professional interest in building teacher capacity in effective classroom management.

The present study provides specific information about teacher-reported classroom management practices in Queensland secondary schools, adding to the existing knowledge about teacher practice in Australia. Although some Australian studies have reported on teacher use of classroom management practices, these investigations have tended to focus on responses to problem behaviour (e.g., Clunies-Ross, Little, & Kienhuis, 2008; Lewis, Romi, Qui, & Katz, 2005; Sullivan, Johnson, Owens, & Conway, 2014). By contrast, the present study sought to find out what teachers do to prevent problem behaviour, and the extent of reported use of specific EBPs for classroom management aligning with the PBL framework. Additionally, this research looked specifically at secondary school implementation, being cognisant of the unique contextual factors surrounding teacher practice in state secondary
schools in Queensland. It was hoped to gather insights about how best to increase secondary teacher use of EBPs for classroom management because increasing teacher use of research-informed classroom management practices in schools is fundamental to counteracting the overuse of reactive and exclusionary approaches reported in a number of studies and educational reports. While it is acknowledged that there is much more to effective classroom management than use of a small number of practices, a focus on individual practices makes explicit the actions that teachers can take to make a positive difference in their classrooms, thus providing an opportunity to build teacher capability.

This research also aimed to inform the work which has recently commenced in reforming pre-service teacher education. Many beginning teachers have reported that pre-service courses do not adequately prepare them in effective classroom management (O’Neill & Stephenson, 2012; Woodcock & Reupert, 2012). While recent recommendations have been made to improve induction processes and to include evidence-based content in teacher education courses (Teacher Education Ministerial Advisory Group, 2014), it is not yet known whether this has been acted upon, or whether it has made a difference to beginning teacher confidence or implementation of EBPs.

Finally, this study sought to add an Australian dimension to the research that has been conducted overseas, predominantly in the USA, on the outcomes of SWPBS and the implementation of evidence-based practices in schools. While there is strong evidence from the USA for the positive outcomes of SWPBS, few studies have been undertaken in secondary school settings (Freeman et al., 2015), and very few have looked at classroom implementation (Fallon, McCarthy, & Sanetti, 2014). Emerging research, predominantly conducted by academics working in SWPBS schools in the USA (e.g., C. R. Cook et al., 2017; Gage, MacSuga-Gage, & Crews, 2017; Moore et al., 2017; Simonsen et al., 2017), has
begun to focus on teacher use of EBPs for classroom management, and ways to increase implementation in classrooms. This is an area which has been unexplored in the Australian context to date.

**Research Questions**

The present study sought to answer the following five research questions (RQs).

RQ 1. Which classroom management practices do Queensland secondary school teachers report using frequently?

RQ 2. To what extent do these teachers perceive that they use 14 EBPs for classroom management?

RQ 3. Do teachers (a) working in schools using the PBL framework, or (b) perceiving that they have good understanding of PBL principles, report higher levels of use of EBPs for classroom management?

RQ 4. What is the impact on perceived use of EBPs for classroom management of (a) teacher demographics, such as gender, years of teaching experience, and subject areas taught; (b) having access to professional development in classroom management; and (c) confidence and concerns with classroom management?

RQ 5. What are the challenges to teacher use of EBPs for classroom management?
Definitions of Key Terms

Classroom Management

Classroom management was used in this study to describe the actions taken by teachers to create safe and productive learning environments which maximise instructional time (Alter & Haydon, 2017; J. T. Cooper et al., 2018; Evertson & Weinstein, 2006). It includes arranging the physical environment, establishing and maintaining classroom expectations and procedures, encouraging expected behaviours, responding to problem behaviours, and actively engaging students (Gable et al., 2009; Simonsen & Myers, 2015). Classroom management and instructional management overlap, and in this study classroom management was seen as encompassing practices necessary for effective instruction to occur (Oliver et al., 2011).

Behaviour Management

Behaviour management was seen as part of classroom management; specifically, the practices employed in response to problem behaviours. This terminology is commonly used interchangeably with “classroom management” (e.g., NSW Ombudsman, 2017; Office of the Western Australian Auditor General, 2014). “Classroom management” was used in preference to “behaviour management” throughout this thesis to denote a continuum of practices, with an emphasis on prevention, except when an original source was being referenced.

Evidence-Based Practices (EBPs)

In this study, practices were regarded as evidence based when they had been evaluated using sound experimental design and methodology; had been shown to be effective; and were
supported by at least three empirical studies published in peer-refereed journals (Simonsen et al., 2008).

**Schoolwide Positive Behaviour Support (SWPBS)**

Schoolwide Positive Behaviour Support (SWPBS) is an evidence-based framework (Horner, Sugai, & Anderson, 2010) which promotes a consistent schoolwide system aimed at developing a positive school climate and reducing rates of problem behaviours.

**Positive Behaviour for Learning (PBL)**

Positive Behaviour for Learning (PBL) is the name used by the Department of Education in Queensland for SWPBS (Hepburn, 2019). It adopts the same theoretical framework and core features as SWPBS in the USA.

**State Secondary Schools**

This study was conducted in Queensland state secondary schools. These schools are funded by the government and serve students aged 11 to 18 in Years 7 through 12. Approximately 60% of secondary students in Queensland attend state schools (Queensland Government, 2019). Non-government secondary schools, such as Catholic and independent schools were not included in this research. In some states in the USA secondary schools are separated into middle and high schools, with middle school roughly equivalent to Years 7 to 9 and high school roughly equivalent to Years 10 to 12 in Queensland.
Role of the Researcher

This study can be categorised as “insider research” (Brannick & Coghlan, 2007, p. 1) as the researcher was conducting research within the organisation in which she was employed. This had a number of benefits, as well as constraints (Workman, 2007). The main benefit for this study was the in-depth knowledge and experience of the researcher in relation to classroom management and working with teachers. This understanding enabled the researcher to use language which was familiar to teachers and to demonstrate sensitivity to their work experiences, including recognising their knowledge, experience, and professionalism. The researcher’s background as a secondary school teacher, then as a regional consultant in behaviour support, and more recently as policy adviser for behaviour support with the Queensland Department of Education (DoE) meant that she had extensive knowledge of the components of classroom management and the difficulties facing schools in achieving consistency of practice.

The researcher’s role as policy adviser with DoE meant that results from the current study would have an increased potential to influence educational policy, including the development of a statewide approach to capacity building in effective classroom management for schools. Insider knowledge of the organisation and the processes and protocols associated with policy development could be used to advantage by the positioning of the study within current DoE priorities, such as a focus on evidence-based practice.

There were, however, some potential disadvantages to the research process in being an organisational insider. Although knowledge of the issues and context provided the researcher with a useful platform from which to launch further investigation, there was also the danger that this might hinder the acceptance of fresh or differing insights. Pre-formed assumptions or overfamiliarity with the context could result in misinterpretation or
neglecting of key information (Workman, 2007). Another issue for the current study related to power relations (Costley, Elliott, & Gibbs, 2010) and perception of role and position within the organisation. While the researcher was not working directly with teachers at the time of the research, she was known within the organisation as a consultant for behaviour support. There was, therefore, a possibility that teachers may have felt obliged to respond in certain ways, which may not have been an accurate reflection of actual practices or beliefs.

Overall, for this study, the benefits associated with being an insider-researcher outweighed the potential drawbacks. A number of steps were taken by the researcher to minimise these previously mentioned risks. First, reflection was built in to the data collection and analysis process. This reflection included questioning of researcher reflexivity and challenged prior knowledge and assumptions so that important information was not overlooked or misinterpreted. Second, research procedures were designed to minimise the influence of researcher role and position. All communication with schools and teachers used Griffith University contact details so that the researcher’s DoE role was not publicised. The only exception was the collection of survey data in two schools, where the researcher was introduced by name and role. In this instance, the anonymity of the survey and the goal of collecting a true representation of teacher experiences were emphasised. Furthermore, the researcher was not known to the majority of staff in these schools.

Structure of the Thesis

The thesis is divided into seven chapters, following a standard structure with results reported across two chapters. This introductory chapter has introduced the research topic and provided the background to the research problem. The research aims and questions have been detailed, and the significance outlined.
Chapter 2 explains the theoretical underpinnings of this research and a rationale is provided for viewing implementation of EBPs for classroom management within the systems framework of SWPBS. A comprehensive literature review of the international research on classroom management follows, drawing together seminal research and the latest research on EBPs. An examination of teacher practice follows, detailing factors impacting on classroom management approach. A discussion of the challenges and supports to implementation of EBPs concludes the literature review.

Chapter 3 explains the methodology for the study, including the research design and procedures. A rationale for the choice of design, linking to the research aims, is provided and procedures for data collection and analysis are detailed. A description of the sampling procedures and setting for the study concludes this chapter.

Chapters 4 and 5 present the results of the research. In Chapter 4, the results of the quantitative analysis are detailed. Participant demographics are provided, and survey responses are summarised. Results from the statistical modelling follow. In Chapter 5, the themes deriving from the phone interviews are described.

Chapter 6 synthesises and discusses the results from the quantitative and qualitative analyses. Finally, Chapter 7 summarises the conclusions that can be drawn from the study findings. Study limitations are then discussed. Finally, implications for policy, practice, and future research are presented, and the contributions of the research are outlined.

**Synthesis**

This introductory chapter has presented the research problem by describing the current situation in Australian government schools in relation to student behaviour, school responses to problem behaviour, adoption of PBL in several jurisdictions, and classroom
management training and support for teachers. The aim and significance of the study and the research questions have been detailed. Key terms have been provided and the role of the researcher has been explained. The next chapter provides a comprehensive overview of the relevant literature.
CHAPTER 2: LITERATURE REVIEW

Introduction

Effective classroom management is essential to quality teaching and learning (Marzano et al., 2003; Wang et al., 1993). A number of evidence-based practices form the basis for a proactive and instructional approach to classroom management, and have been shown to impact positively on student learning outcomes. Despite this, pre-service teaching courses are often lacking in research-informed classroom management content (Freeman, Simonsen, Briere, & MacSuga-Gage, 2014; O’Neill & Stephenson, 2014) and many teachers continue to struggle with classroom management in the course of their careers (Reinke, Herman, & Stormont, 2013). Now, more than ever, there is a need for an evidence-based approach to classroom management.

This review is divided into four sections. The first section introduces the theoretical lens through which classroom management has been viewed in this research and provides a rationale for positioning evidence-based classroom management within the SWPBS framework. The second section examines key literature on classroom management and the research into EBPs for classroom management, including what is currently known about teacher implementation. The third section identifies the research-to-practice gap addressed by this study and the known challenges and supports to teacher implementation of EBPs. The fourth and final section provides a literary synthesis with links to the current study.

Theoretical Underpinnings

In this research, SWPBS has been viewed as the framework within which proactive evidence-based classroom management is embedded. SWPBS takes a systems approach to
behaviour support in schools, built on the principles of applied behaviour analysis (ABA). The systems perspective taken in SWPBS proposes that classroom management is best understood when considered in the context of the whole-school environment. Thus, the practices used by classroom teachers to prevent and manage student behavioural problems are influenced by the wider cultural and policy contexts as well as the whole-school systems that are in place to support and respond to student behaviour. An understanding of the behaviourist principles of ABA allows the appropriate selection of practices to establish a supportive and well-ordered environment where students are more likely to behave appropriately. Hence, this research is founded on the established features of SWPBS, the documented outcomes of high-quality SWPBS implementation, and the established classroom management approach aligned with the SWPBS framework.

**Schoolwide Positive Behaviour Support**

Schoolwide Positive Behavior Support (SWPBS) is a proactive, systems-level approach that enables schools to effectively and efficiently support student (and staff) behaviour. (Simonsen, Sugai, & Negron, 2008, p. 33)

SWPBS draws on the technologies of implementation science and ABA to improve the ability of schools to address the behaviour support needs of students and staff (T. J. Lewis & Sugai, 1999; OSEP Technical Assistance Center on Positive Behavioral Interventions and Support, 2015). ABA is an empirically supported approach to behavioural assessment (Simpson, 2005) based on the principles of behaviourism (Skinner, 1953). The main concept contained in Skinner’s science of behaviour is that of “operant conditioning” which describes how behaviour may be increased or decreased as a result of either positive or negative reinforcement. For example, a student may increase the number of attempts to do a task contingent on teacher praise for each attempt (positive reinforcement). Conversely, a
student may decrease on-task behaviour if this results in the task being withdrawn (negative reinforcement). ABA considers behaviour in relation to environmental contingencies as the foundation for selecting functionally based interventions aimed at improving the quality of life of individuals. In the ABA approach attention is paid to the selection of interventions which can be replicated and generalised (Simonsen & Myers, 2015, p. 12). This understanding lies at the heart of SWPBS implementation, where the ABA approach is applied at the whole-school level to provide support and intervention to all students. Systems are put in place across the entire school to teach and reinforce expected behaviours in order to positively influence individual student behaviour. Schools implementing SWPBS take a preventative approach to student behaviour and focus strongly on contingency management, such as teaching and reinforcing expected behaviours, in order to reduce inappropriate behaviours.

In the 1990s American researchers began to expand the field of ABA to apply it to entire school systems (e.g., T. J. Lewis & Sugai, 1999), amid growing concerns in the USA about anti-social behaviour and youth violence. They advocated for a proactive system of support, using positive behaviour support principles to build school capacity to reduce problem behaviour. This proposed model reflected behaviourist theory in that antecedents designed to prevent problem behaviour, and consequences aimed at reinforcing positive behaviour, were established and applied consistently at a whole-school level. As interest in a whole-school approach grew, a three-tiered preventative model (see Figure 1) based on the U.S. Health Service framework was proposed by Walker and colleagues (1996). This model described a whole-school approach aimed at enabling schools to target interventions more efficiently and effectively. Proactive implementation of primary, or universal, strategies, aimed at preventing problem behaviours for the entire school population, formed the
foundation of this model. Examples of universal strategies included direct teaching and reinforcement of expected behaviours. At the secondary tier, the model recommended identification of at-risk students and provision of more targeted support, such as specific social skills training and increased family communication. Finally, comprehensive assessment-based interventions were proposed for those students identified as needing tertiary level support due to extremely challenging and chronic anti-social behaviours.

Figure 1. Three-tiered intervention model (OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports, 2015).

This three-tiered model was tested in an elementary school setting (T. J. Lewis et al., 1998) yielding positive results. A primary prevention (Tier 1) support system was introduced to increase positive student behaviour in non-classroom areas of the school. A combination of direct intervention strategies, including active supervision, and introduction of a social skills program to teach appropriate behaviours in specific school contexts, resulted in an
overall reduction in behaviour problems. At this time, the terminology “Effective Behaviour Support” was being used to describe this schoolwide approach.

Building on initial studies, the framework which came to be known as Schoolwide Positive Behaviour Support (also known as Positive Behaviour Interventions and Supports) was developed and refined. Key concepts and implementation steps were described by Sugai and Horner (2002) and pilots in a small number of predominantly elementary schools began. The overall aim of SWPBS was to make schools into more positive places for both students and staff, resulting in improved learning outcomes. In addition, key features of effective schoolwide discipline systems were synthesised from the research to provide implementation guidelines to schools. In essence, six key features identified in the literature characterise SWPBS:

1. Common purpose and approach;
2. Expectations defined;
3. System to explicitly teach expectations;
4. Continuum of procedures to acknowledge appropriate behaviours;
5. Continuum of procedures to respond to inappropriate behaviours; and
6. Ongoing monitoring and evaluation.

**SWPBS Outcomes**

A strong body of research (e.g., Bradshaw, Mitchell, & Leaf, 2010; Chitiyo, May, & Chitiyo, 2012; Horner et al., 2010; Luiselli, Putnam, Handler, & Feinberg, 2005) emanating predominantly from the USA exists for the implementation of SWPBS as a whole-school approach to preventing problem behaviour and supporting pro-social behaviour in schools. Many of these studies (e.g., Bradshaw et al., 2010; Horner et al., 2009; Muscott, Mann, &
LeBrun, 2008; Simonsen et al., 2012) have been randomised control effectiveness trials which have examined SWPBS implementation in various school districts in the USA where training and support in implementing the key features of SWPBS have been provided by state education authorities. Studies have largely been in agreement about statistically significant improvements in behavioural outcomes -- typically reductions in disciplinary referrals -- related to SWPBS implementation. However, issues relating to the use of referral data as an outcomes measure have been noted, due to the possible subjectivity and inconsistency of data collection (Horner et al., 2009). Within and across schools there may be discrepancies in the definitions of referral categories, and referral processes may not be followed consistently. Also, referral data may not pick up on less overt behaviours, such as student disengagement or withdrawal (Flannery, Fenning, McGrath Kato, & Bohanon, 2013). As already discussed, these kinds of behaviours can be just as detrimental to student learning as more readily reported externalising behaviours, such as disruption or aggression.

There is also less evidence on whether SWPBS implementation has a positive effect on academic outcomes. Algozzine and colleagues (2011) have advocated for academic and social skills to be taught in tandem in order to maximise outcomes, but only a few studies (e.g., Horner et al., 2009; Luiselli et al., 2005; Simonsen et al., 2012) have shown small to medium improvements in maths results and insignificant to small improvements in relation to reading. One small-scale experimental study found that a combination of academic and classroom management interventions resulted in improved reading scores, as compared with an academic intervention alone (Volpe, Young, Piana, & Zaslofsky, 2012). Another more recent study (Gage, Leite, Childs, & Kincaid, 2017), using data covering a 10-year period from over 2,000 schools in Florida, found that schools implementing SWPBS with fidelity
had more students achieving at or above benchmarks for reading and maths, although the effect sizes were small.

While a number of Australian state schooling systems have adopted the SWPBS framework, empirical research investigating the outcomes of PBL implementation in Australian schools is virtually non-existent, with studies that have taken place being relatively localised. For example, a study of 12 PBL schools and eight non-PBL schools in New South Wales, concluded that students in the schools that were implementing PBL had better knowledge of appropriate behaviours and more positive attitudes towards school (Yeung, Barker, Tracey, & Mooney, 2013). A number of conference papers which were synthesised into a report published by the University of Western Sydney (Mooney, Dobia, Power, Watson, & Yeung, 2008) reported positive parent and teacher attitudes towards implementation of PBL in NSW and improvements in school implementation of PBL over time, as measured by a standard evaluation tool. No differences in self-efficacy between teachers working in PBL or non-PBL schools were reported.

Research into the implementation of SWPBS at the classroom level is emerging, with only a handful studies in the USA undertaken, and no studies yet undertaken in Australia. To date, teachers in schools implementing SWPBS in the USA have reported consistent implementation of preventative classroom management practices, despite some challenges associated with consistently responding to problem behaviour, differentiating instruction, and explicitly teaching behavioural expectations (Fallon et al., 2014). Research by Feuerborn and colleagues also suggests that teachers in schools implementing SWPBS are more likely to take a preventative approach and show more commitment to positive behaviour support practices (Feuerborn & Chinn, 2012; Feuerborn, Wallace, & Tyre, 2016). In a study of teachers in New York State, teachers working in SWPBS schools reported higher knowledge
of establishing, teaching, and reinforcing expectations, which perhaps reflects the strong emphasis on teaching and reinforcement within the SWPBS framework (Ficarra & Quinn, 2014). By comparison, low rates of praise and opportunities to respond were observed in primary classrooms implementing SWPBS with high fidelity (Reinke et al., 2013).

In an Australian review of the international literature on the effective implementation and sustainability of SWPBS (Yeung et al., 2016), four essential components for implementation integrity and ongoing improvement of outcomes were derived from the existing literature. These elements were administrator support, professional development, classroom implementation fidelity, and effective evaluation. The authors highlighted the importance of classroom fidelity to successful SWPBS implementation, based on evidence that implementation of positive behaviour support practices at the classroom level was a key predictor of effective schoolwide implementation. However, it was noted that classroom implementation in Australia may be less than optimal due to the lack of professional development and coaching in EBPs for behaviour support. The authors also proposed that teachers should receive coaching, with a focus on underlying beliefs, practices, and collection and analysis of classroom behaviour data to inform student interventions.

SWPBS and Classroom Management

Essentially, SWPBS advocates a preventative, instructional approach to improving both academic and behavioural outcomes. At the whole-school level, universal (Tier 1) support to all students ensures that most students experience success and do not require additional supports or interventions. This principle is evident in the classroom, where the majority of teacher practices for classroom management are aimed at preventing or minimising unproductive behaviours. Classroom management aligning with SWPBS aims to
intentionally use EBPs for classroom management (Simonsen & Myers, 2015). A proactive, evidence-based approach to classroom management should, in theory, flow from the adoption of SWPBS across the whole school, with selection of specific practices based on behaviourist principles which highlight the importance of teacher practice and the classroom environment in shaping the behaviour of students.

In schools using the SWPBS framework systematic implementation of EBPs for classroom management is buttressed by the effective implementation of schoolwide systems for positive behaviour support. This systems approach pays attention to the encompassing culture and context within which implementation takes place. Thus, implementation of key EBPs for classroom management is strengthened by the establishment of a positive schoolwide culture, where the importance of prevention is understood, and student support is based on an understanding of student needs and the underlying functions of behaviour. This schoolwide system promotes the common understanding that the purpose of using EBPs in classrooms is to improve student learning outcomes and to enhance student and staff well-being.

SWPBS emphasises four important and inter-related features shown in Figure 2; outcomes, data, systems, and practices (Sugai & Horner, 2006). Schools use the four interactive elements model to determine (a) the outcomes they are seeking to achieve, (b) the data which will indicate current status and achievement of the outcomes, (c) the evidence-based practices which are needed to achieve the identified outcomes, and (d) the systems that are needed to support implementation.

The same decision-making model can be applied to classroom management. At the classroom level, outcomes relate to increases in student engagement with learning, teacher well-being and positive classroom climate, and decreases in problem behaviours. The
monitoring of data on student behaviour and teacher implementation of EBPs for classroom management allows teachers to collect evidence on the effectiveness of practices, and to monitor their own implementation, thus allowing for adjustments to be made in response to the data collected. For example, teachers can compare rates of minor behavioural infractions before and after teaching a particular procedure. Teachers can also monitor their use of specific practices in order to identify strengths and areas for improvement. The practices are the evidence-based classroom management practices, aligning with the SWPBS framework. Strategic use of these practices allows teachers to create more positive classroom environments where the majority of students are learning and achieving. Importantly, the consistent use of proactive EBPs for classroom management provides the basis for the provision of high-quality instruction which is a basic feature of universal student support (Hulac & Briesch, 2017). Finally, in order for consistent implementation of EBPs for classroom management, systems need to be in place to support teachers with implementation. This relates to access to professional development and coaching support, and having opportunities for problem-solving with colleagues.

![Figure 2. Four interactive elements model (OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports, 2015).](image-url)
Classroom Management Approach

Overall, research on classroom management has consistently found that a preventative approach, which focuses on proactively teaching and reinforcing expected behaviours, is more effective than a reactive approach, which focuses on responding to problem behaviours after they arise (Oliver et al., 2011). Kounin (1970) identified that the main difference between effective and ineffective classroom managers lay not in their responses to problem behaviours once they occurred, but in their ability to prevent problem behaviours. A focus on prevention not only makes problem behaviours less likely but has also been shown to have a positive effect on teacher well-being (Reinke et al., 2015) and on positive student-teacher relationships (R. Lewis, Romi, Katz, & Qui, 2008). A preventative approach is consistent with implementation of SWPBS and recognises the behaviourist principle of antecedent intervention to promote behavioural change.

Conversely, several studies have reported on the negative effects of reactive approaches to classroom management. According to research conducted by Sutherland and colleagues (Sutherland et al., 2008; Sutherland & Oswald, 2005), reduced student engagement and increased rates of disruption were observed when teachers used a predominantly reactive approach to student behaviour. A transactional relationship between disruptive or disengaged behaviour and negative teacher-student interactions has been suggested (Blake, 2005; Sutherland & Oswald, 2005). Thus, negative interactions result in increases in problem behaviours and vice versa. Evidence that this transactional relationship continues to be seen in Australian schools was provided by a recent Victorian Ombudsman investigation which found that in classrooms where the main teacher focus was on responding to problem behaviour, breakdowns in teacher-student relationships and use of exclusionary discipline practices were more likely (Victorian Ombudsman, 2017).
Attention has also been drawn to the detrimental effects of a reactive approach to classroom management on teacher welfare. Taking a reactive approach has been shown to impact negatively on teacher well-being (Goss et al., 2017; Hastings & Bham, 2003), to contribute towards teacher stress (Clunies-Ross, Little, & Kienhuis, 2008; Geving, 2007; Moloney, 2014; Tsouloupas et al., 2010), and to lead to increased teacher attrition (Harrell, Leavell, van Tassel, & McKee, 2004; Ingersoll & Smith, 2003). It therefore appears clear that classroom management should prioritise prevention and use of proactive strategies, not only to improve outcomes for students, but also to enhance teacher well-being.

Teacher attitude and confidence towards dealing with problem behaviour, including teachers’ belief in their own ability to effect change, has been shown to impact on classroom management approach and use of practices (Abu-Tineh, Khasawneh, & Khalaileh, 2011; Herman, Hickmon-Rosa, & Reinke, 2018). Teacher beliefs about their own effectiveness is often termed “self-efficacy” and is usually taken to mean the extent to which teachers believe they can positively influence student learning (Guskey & Passaro, 1994). Low classroom management self-efficacy is associated with emotional exhaustion (Aloe, Amo, & Shanahan, 2014) and teacher burnout (Reinke et al., 2015). “Burnout” is a term often used to describe a feeling of stress and emotional exhaustion, sense of failure, and tendency to depersonalise relationships in those who work with people (Brouwers & Tomic, 2000). Burnout in teachers has been shown to be associated with problem behaviour and disengagement among students (Skaalvik & Skaalvik, 2017).

Teachers’ beliefs in their ability to deal effectively with student behaviour are important due to the way these self-efficacy beliefs influence the classroom management practices used by teachers (Woolfolk, Rosoff, & Hoy, 1990). Research has identified an inter-relationship between the classroom management practices used by teachers, the way they
perceive student behaviour, their confidence and stress in relation to classroom management, and the occurrence of problem behaviours (Oberle & Schonert-Reichl, 2016). For example, attributing problem behaviour to external factors may result in increased use of reactive practices, such as removing students from the classroom (Gibbs & Miller, 2014). Teachers reporting low classroom management self-efficacy have also been seen to use more harsh reprimands and less praise (Reinke et al., 2015). Researchers have questioned whether feeling stressed about classroom management leads to the use of less effective practices, or whether use of ineffective practices leads to increased instances of problem behaviour, resulting in lower confidence and more stress (Aloe et al., 2014; Brouwers & Tomic, 2000). Some have suggested that the effect is cyclical, with increased teacher stress resulting in use of less effective practices and increased student misbehaviour, which in turn increases teacher stress and lowers perceptions of self-efficacy (Oberle & Schonert-Reichl, 2016).

Shook (2012) interviewed 19 pre-service teachers following an in-school teaching placement, and found they reported mainly using reactive strategies to respond to student behaviour rather than employing preventative antecedent-based strategies, such as restructuring the environment or providing prompts. Interestingly, most of the surveyed pre-service teachers reported satisfaction with their classroom management approach and were not inclined to change any strategies, suggesting that they believed that their current approach was appropriate and they had no need to question their practice.

Another study, using grounded theory, analysed 69 written responses from teachers and pre-service teachers working in elementary, middle, and high schools in various states in the USA (Feuerborn & Chinn, 2012). Scenarios were provided portraying a number of challenges facing fictitious students, and teachers were asked to provide a plan for support provision in order to assess teacher knowledge of positive behaviour support strategies. The
analysis showed that teachers tended to attribute social and academic problems to external factors. However, teachers in schools implementing SWPBS were more likely to consider environmental variables and adjustments to the classroom environment to prevent problems. This finding may suggest that teachers who have received training in positive behaviour support are more aware of the classroom variables that are within the control of the teacher and may therefore take a more preventative approach.

Recent research from New Zealand and Australia suggests that teachers who view problem behaviour as due to the home situation or individual student characteristics, are likely to try to control student behaviour through the imposition of reprimands and sanctions, rather than proactively modifying the classroom environment through the implementation of positive behaviour support practices (Johansen, Little, & Akin-Little, 2011; Sullivan et al., 2014). Teachers from five primary schools ($n = 42$) were surveyed to establish their perceptions in relation to problem behaviour and classroom management in a New Zealand study (Johansen et al., 2011). Findings indicated that the majority of teachers believed that the causes of problem behaviour were due to external factors such as home situation, or internal factors within the child, which the child was able to control. Additionally, teachers believed that classroom conditions, such as teacher classroom management, were only sometimes a contributing factor to problem behaviour. In other words, the surveyed teachers thought that problem behaviour was caused by factors beyond their control as classroom teachers. Teachers also reported little confidence in the effectiveness of positive behaviour support practices, yet overall felt confident in their ability to manage classroom behaviour despite receiving little training as part of initial teacher education programs or from school-based professional development activities.
In a large survey of primary and secondary teachers in South Australia, Sullivan and colleagues (2014) reported teacher perceptions consistent with findings in the New Zealand study. Over one thousand primary and secondary teachers responded to an online survey about their classroom management experiences. The majority of the participating teachers reported that the main problem behaviours they dealt with on a daily basis were low-level behaviours such as talking out of turn, or task refusal. Overall, teachers tended to use strategies which sought to control student behaviour, suggesting that they attributed student misbehaviour to external factors and did not perceive that the classroom and instructional environment impacted on student behaviour. The authors argued for a better understanding of problem behaviour and for teachers to take the ecology of the classroom into account in order to increase student engagement with learning.

**Effective Classroom Management**

Taken together, classroom research findings agree that effective classroom management is more a matter of group management and problem prevention than disciplinary response to misbehaviour. (Brophy, 1986, p. 189)

The teacher behaviours that contribute to classroom environments conducive to student learning are sometimes referred to as “classroom management,” “behaviour management,” and “classroom discipline.” Classroom management seems to have more widespread use in the literature (e.g., Brophy, 2006; Emmer et al., 1980; Evertson, 1985; Marzano et al., 2003) and will be used in this study in preference to behaviour management, which is the component of classroom management which focuses on responding to problem behaviour. Classroom management, by contrast, contains a continuum of strategies, ranging from proactive to reactive. Classroom management describes the actions taken by teachers
to create safe and supportive learning environments (Evertson & Weinstein, 2006) and to maximise the time available for instruction (Scott, 2017). The terminology “classroom practices” (Simonsen et al., 2008) will be used in this study to describe the components of classroom management, which include practices to increase instructional time and academic engagement.

The use of classroom management practices to establish orderly and productive classroom environments has been shown to reduce the occurrence and intensity of behavioural problems in the classroom, increasing the time available for learning (Burke, Oats, Ringle, Fichtner, & DelGaudio, 2011; Marzano et al., 2003; Oliver et al., 2011). The view that classroom management intertwines with effective instructional strategies dates back to early research into effective teaching (Brophy, 1986). Classroom management should therefore be seen as a foundational component of effective instruction rather than as a separate set of practices for maintaining control and order (Cooper & Scott, 2017). The strategic use of practices to encourage student engagement in learning is an important component of classroom management, given that student disengagement has been identified as a major challenge facing teachers in Australian schools (Angus et al., 2009; Goss et al., 2017).

Key Classroom Management Practices

Jacob Kounin is usually acknowledged as the first researcher to investigate the classroom management practices of effective teachers. Kounin (1970) videotaped 80 elementary classrooms and defined effective teachers as those running classrooms with fewer behavioural disruptions and more on-task student behaviour. He identified “with-itness” and “overlapping” as the two key characteristics of effective classroom managers. “With-itness”
relates to a teacher’s ability to know what is going on in the classroom using constant awareness and monitoring, while “overlapping” refers to being able to do more than one thing at the same time; for example, listening to a child read and scanning the classroom for off-task behaviour.

Kounin’s (1970) findings were supported by subsequent studies carried out in the 1980s (Emmer et al., 1980; Everston & Emmer, 1982). These descriptive studies involved both elementary and secondary school teachers and identified features of effective practice which aligned with Kounin’s categories of “with-itness” and “overlapping.” For example, effective classroom managers spent time early in the year teaching expectations and monitoring student behaviour. They were also better organised, had routines for managing transitions, and gave clearer instructions. These effectiveness studies found that teachers who spent time on proactive classroom management early in the year had classrooms with fewer disruptions and more student time on task.

Evidence-Based Terminology

Although the terminology “evidence-based practice” has become somewhat of a catchphrase in education, there is a wide degree of variability in how this term is used and understood. Often, the term is used to describe any practice that has been shown in a research paper to have positive benefits. However, one positive study is not sufficient to qualify a practice as evidence based. In order for a practice to be classified as evidence based, it first needs to be clearly defined and have clearly identified core components that can be replicated (Fixsen et al., 2005). It must also emanate from a number of quality research studies, using appropriate (predominantly experimental) research designs (B. G. Cook & Cook, 2013). Application of four criteria to determine whether a practice qualifies as evidence based was
proposed by Horner et al. (2010). According to these authors, an evidence-based practice must (a) have an operational definition, (b) clearly specify expected outcomes, (c) derive from a defined conceptual theory, and (d) define the contexts for use, target population, and necessary qualifications of user groups.

In the present study, evidence-based classroom management is considered to be proactive and instructional, aligning with the whole-school SWPBS framework which views the immediate environment as the strongest predictor of student behaviour. Thus, the classroom management practices at the centre of this research are practices which encompass environmental modifications and instructional strategies as well as practices for creating a sense of order and predictability. There are many different approaches, or models, of classroom management, not all of which outline specific EBPs. Over the last 10 years, Australian research carried out by O’Neill and Stephenson has shown that many models included in pre-service teaching courses are theoretical approaches, based on a philosophy rather than an established evidence base (O’Neill & Stephenson, 2011, 2012, 2014). In addition, these researchers have found that undergraduate teaching courses and classroom management text books typically used in courses often contained several different (and sometimes opposing models), and have been frequently covered by course instructors in a cursory fashion. These circumstances have potentially left pre-service teachers confused and without clear guidance on the importance of selecting a classroom management model with a proven research base.

In their review of the classroom management content contained in primary pre-service teaching programs across 35 Australian institutions, O’Neill and Stephenson (2012) found 36 different models of classroom management. The most common model was Decisive Discipline (Rogers, 1989), followed by Applied Behaviour Analysis (ABA; Baer, Wolf, &
Risley, 1968), Choice Theory (Glasser, 1990), Assertive Discipline (Canter & Canter, 1992), Goal-Centred Theory (Dreikurs, 1957) and Positive Behaviour Interventions and Supports (PBIS; Sugai & Horner, 2002). Of the included models, only ABA and PBIS (often referred to as SWPBS and known as PBL in Queensland) are supported by empirical research (Alberto & Troutman, 2013; Muscott, Mann, & LeBrun, 2008; O’Neill & Stephenson, 2012). In a follow-up study, O’Neill and Stephenson (2014) mapped 18 evidence-based practices for classroom management against the 20 most common models included in pre-service teacher education courses. PBIS contained all 18 of the EBPs, ABA contained 15, with the remainder of the models including 12 or fewer.

Evidence-Based Practices for Classroom Management

Research on EBPs for classroom management has only begun to emerge within the last decade, in tandem with the emergence of implementation science (Fixsen, Naoom, Blase, & Friedman, 2005) and an interest in evidence-based approaches across a number of disciplines (e.g., Briesch, Chafouleas, Neugebauer, & Riley-Tillman, 2013; Forman, Olin, Hoagwood, Crowe, & Saka, 2009). Overall, the research is in agreement about the components of effective classroom management, which apply across all sectors and year levels (Brophy, 1986). While classroom management guidelines provided to teachers vary slightly, several key practices have been identified. The largest body of evidence relates to the importance of establishing and reviewing classroom expectations, and teaching procedures and routines (e.g., Bohn, Roehrig, & Pressley, 2004; Brophy, 1988; C. E. Cameron, Connor, & Morrison, 2005; De Pry & Sugai, 2002; Everston & Emmer, 1982; Gunter et al., 2002; Marr, Audette, White, Ellis, & Algozzine, 2002; Marzano et al., 2003). Closely related to the establishment of classroom rules and routines is the setting up of the
environment to promote student success. This relates to the physical set up of the classroom, such as the positioning of desks, minimising distractions, and access to equipment (Simonsen et al., 2008). Research has shown that establishing rules and routines for classroom behaviour and organising the physical classroom environment result in increased student time on task and reductions in disruptive behaviour. It is therefore unsurprising that many classroom management text books and professional development courses place emphasis on setting clear expectations for behaviour and increasing structure through the establishment of routines and organisation of the physical environment.

The classroom management literature on the use of acknowledgment and rewards is also extensive (e.g., Emmer et al., 1980; Gable et al., 2009; Gunter et al., 2002; Kern & Clemens, 2007; Newcomer, 2009). Many researchers have advocated for extensive use of non-verbal and verbal acknowledgement based on the empirical evidence that provision of acknowledgement reinforces positive student behaviour, although the use of behaviour-specific praise seems to have the strongest evidence of efficacy (Gable et al., 2009). Behaviour-specific praise involves the teacher describing the positive behaviour demonstrated by the student with the goal of increasing student use of the behaviour (Newcomer, 2009). In addition, some researchers have advocated for a ratio of positive to corrective interactions at 3:1 or more in order to create a positive classroom environment and promote greater use of prosocial classroom behaviours (Gable et al., 2009).

The evidence on the use of tangible rewards as a means of reinforcing student behaviour is more disputed within the classroom management literature. Some researchers have recommended use of token economies, whereby students earn tokens for appropriate behaviour which can be exchanged for tangible items such as food or toys. For example, Gunter et al. (2002) claimed that token economies had overwhelming support for
effectiveness, citing a 1993 study conducted by Shores and colleagues. Token economies were also recognised as an evidence-based practice based on a number of studies demonstrating that token economies were effective with learners of all abilities and ages (Simonsen et al., 2008). However, there is also research claiming detrimental effects of using extrinsic rewards with students (Deci, Koestner, & Ryan, 2001). There have been a number of strong opponents to the use of rewards in schools, with some researchers claiming that the use of rewards is controlling and decreases internal motivation (e.g., Kohn, 1993).

Practices which relate to academic engagement, such as giving clear instructions (e.g., Brophy, 1986; C. E. Cameron et al., 2005), monitoring the classroom (e.g., Kunter, Baumert, & Köller, 2007; Putnam, Luiselli, Handler, & Jefferson, 2003), and actively engaging students (e.g., Gunter et al., 2002; McKee & Witt, 1990), have also been identified as important proactive classroom management practices. Differentiating instruction to meet the needs of the learner is another widely recommended practice with strong empirical support (e.g., Emmer et al., 1980; McEvoy & Welker, 2000). There is widespread recognition that an inability to access the curriculum is a precipitating factor often resulting in student misbehaviour (Sutherland et al., 2008).

The majority of the practices identified in the classroom management literature are proactive, designed to increase the likelihood of student success and to minimise the occurrence of problem behaviours. However, the literature also identifies some guidelines for responding to inappropriate behaviours. In particular, being consistent with responses to problem behaviour is widely acknowledged to be effective in reducing behavioural disruptions (e.g., Marzano et al., 2003; McKee & Witt, 1990; Wharton-McDonald, Pressley, & Hampston, 1998). In an early experimental study involving secondary school teachers, researchers noted increased student engagement and decreased behavioural disruptions when
teachers consistently managed student misbehaviour (Evertson, 1985). Classroom management texts continue to include advice to teachers to respond consistently to problem behaviour (e.g., Marzano et al., 2003; Simonsen & Myers, 2015).

Simonsen et al. (2008) reviewed the literature on evidence-based classroom management practices. By sorting and grouping effective practices identified in the research, these authors established five features of effective classroom management. The practices must:

1. maximise structure;
2. establish, teach, and reinforce positive expectations;
3. actively engage students;
4. establish a continuum of strategies to acknowledge appropriate behaviour; and
5. establish a continuum of strategies to respond to inappropriate behaviour.

Each of these features consists of a number of observable and measurable practices. For example, a practice which maximises structure is the explicit teaching of classroom routines, such as how to collect materials. Further research has sought to confirm whether some of the classroom management practices contained in the Simonsen et al. review deserve to be called evidence-based. For example, teacher-directed opportunities to respond (OTR), a practice fitting within the feature of “actively engage students” and characterised as any teacher-initiated invitation for a correct academic response (Scott, Alter, & Hirn, 2011) was the subject of a recent empirical study involving five elementary teachers (MacSuga-Gage & Gage, 2015). The study concluded that OTR increased student engagement and decreased disruptive behaviour. However, no improvements in academic outcomes were identified. A subsequent systematic review of the literature on OTR identified 15 empirical studies focusing on the outcomes of teacher-directed OTR and concluded that providing multiple
OTR increased academic engagement and decreased problem behaviour and could therefore be classified as an evidence-based practice (MacSuga-Gage & Simonsen, 2015).

Recent research on the use of practices to reinforce student behaviour has been more equivocal. A systematic review of the research on token economies, using meta-analytic techniques and applying What Works Clearinghouse (WWC) design and evidence standards, was conducted by Maggin and colleagues (Maggin, Chafouleas, Goddard, & Johnson, 2011). Token economies are a reinforcement intervention often recommended to teachers, and were considered by Simonsen and colleagues as one of the evidence-based practices under the feature of “establish a continuum of strategies to acknowledge appropriate behaviour” (Simonsen et al., 2008). Maggin et al. reviewed 24 single-case studies undertaken in school settings. They found that the majority of studies lacked methodological rigour and did not meet the WWC design criteria, although there was evidence that use of token economies reduced behavioural disruptions. The authors concluded that more robust research was needed before use of token economies could be considered as evidence based.

On the other hand, a number of recent reviews and studies have confirmed the efficacy of another reinforcement intervention, use of group contingencies (Bowman-Perrott, Burke, Zaini, Zhang, & Vannest, 2016; Chafouleas, Hagermoser Sanetti, Jaffery, & Fallon, 2012; Flower, McKenna, Bunuan, Muething, & Vega, 2014; Maggin, Johnson, Chafouleas, Ruberto, & Berggren, 2012). Group contingencies are based on the principles of positive reinforcement and are frequently recommended as a universal or targeted classroom management intervention. In a group contingency intervention, all students in a class receive a predetermined reward based on the behaviour of the entire group. Maggin and colleagues conducted a systematic review of research on the outcomes of group contingencies, applying WWC design and evidence standards (Maggin et al., 2012). They found 27 studies which
met the WWC criteria and reached the conclusion that there was enough evidence for group contingencies to be considered an evidence-based intervention for students with behavioural difficulties. However, they were unable to reach any firm conclusions on the conditions necessary for group contingency interventions to be effective.

In general, the classroom management practices recommended to teachers are well established and have been known for decades. However, in recent years more attention has been directed to the conditions under which these practices are known to be effective, and to the quality of the evidence on the outcomes associated with the implementation of specific classroom management practices. Contemporary research has focused on establishing the classroom management practices which can be considered to have an evidence base (i.e., EBPs). This focus on EBPs allows identification of the important components and implementation steps which theoretically lead to improvements in student outcomes.

The features of effective classroom management identified by Simonsen and colleagues provide a useful framework for the description and implementation of EBPs for classroom management in all schools, including secondary schools. Recent research has endorsed the range of practices identified by Simonsen and colleagues. Therefore, the classroom management practices selected for scrutiny in the present study have been drawn from the five features of effective classroom management established in the Simonsen et al. review (2008). Table 1 lists the 14 EBPs selected as a focus for the current study, showing alignment with the five classroom management features.
Table 1

_Evidence-Based Classroom Management Practices Used in This Study Aligning with Features Identified by Simonsen et al. (2008)_

<table>
<thead>
<tr>
<th>Feature</th>
<th>Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximise structure</td>
<td>• Organising the classroom environment to maximise engagement</td>
</tr>
<tr>
<td></td>
<td>• Giving clear instructions for activities</td>
</tr>
<tr>
<td></td>
<td>• Teaching classroom procedures and routines explicitly</td>
</tr>
<tr>
<td>Establish, teach, and reinforce positive expectations</td>
<td>• Establishing, reviewing and reteaching a small number of positively stated classroom rules</td>
</tr>
<tr>
<td></td>
<td>• Actively monitoring the classroom</td>
</tr>
<tr>
<td></td>
<td>• Providing frequent prompts for appropriate behaviour</td>
</tr>
<tr>
<td></td>
<td>• Providing all students with frequent opportunities to respond</td>
</tr>
<tr>
<td>Actively engage students</td>
<td>• Differentiating instruction to suit the learner</td>
</tr>
<tr>
<td>Establish a continuum of strategies to acknowledge appropriate behaviour</td>
<td>• Using non-verbal acknowledgement to encourage appropriate behaviour</td>
</tr>
<tr>
<td></td>
<td>• Providing specific, descriptive feedback on appropriate behaviour</td>
</tr>
<tr>
<td></td>
<td>• Using a classroom reward system</td>
</tr>
<tr>
<td></td>
<td>• Maintaining at least a 4:1 ratio of positive to corrective feedback</td>
</tr>
<tr>
<td>Establish a continuum of strategies to respond to inappropriate behaviour</td>
<td>• Incorporating teaching opportunity when responding to minor behavioural concerns</td>
</tr>
<tr>
<td></td>
<td>• Consistently responding to problem behaviour</td>
</tr>
</tbody>
</table>

**Teacher Practice**

Research dating back 50 years has confirmed the importance of a preventative approach to classroom management and the efficacy of a small number of EBPs. It might therefore be assumed that classroom teachers have the knowledge and tools to prevent the majority of common behavioural issues, and to respond effectively to the low-level disruptions that occur on a daily basis. However, research suggests that many teachers are unaware of EBPs (Reinke, Stormont, Herman, Puri, & Goel, 2011), and may underuse the practices identified in research as being most effective, while other, ineffective or unsupported practices are widespread (Dutton Tillery, Varjas, Meyers, & Collins, 2010; Mitchell, Hirn, & Lewis, 2017; Roache & Lewis, 2011a; Sullivan et al., 2014; Westling, 2010).
A number of studies have surveyed teachers regarding the classroom management practices they employ (e.g., Briesch, Briesch, & Chafouleas, 2015; Clunies-Ross et al., 2008; Emmer & Hickman, 1991; R. Lewis, Romi, Qui, & Katz, 2005; Shook, 2012). In general, these studies have shown that teacher use of evidence-based classroom management practices is patchy and that use of less effective, reactive, or controlling practices is prevalent. In the last 15 years, research carried out by Lewis and colleagues (R. Lewis, 2001, 2006; R. Lewis, Roache, & Romi, 2011; R. Lewis et al., 2008) has demonstrated a relationship between reactive teacher classroom management practices and unproductive student behaviour in Australian primary and secondary schools. Students reported more negative attitudes towards teachers and less involvement in schoolwork when their teachers favoured reactive approaches to student behaviour management. As previously discussed, reactive approaches can be defined as responses to problem behaviours once they have occurred (such as reprimanding or delivering a sanction), as opposed to preventative or proactive strategies (such as setting rules or providing praise) which are designed to prevent problem behaviours from occurring. These Australian studies have demonstrated that when teachers used more positive practices, such as praising appropriate behaviour and discussing issues with students, students reported less distraction and greater belief that any intervention was warranted.

Roache and Lewis (2011b) surveyed over 500 primary and secondary school teachers in Victoria on their use of six provided classroom management approaches (viz., aggression, discussion, hinting, involvement, recognition, and punishment). Aggression and punishment are undoubtedly reactive strategies, while the other practices are typically seen as fitting within the established EBPs for classroom management. For example, discussion and involvement are strategies to actively engage students, and recognition is a way of acknowledging appropriate behaviour. Overall, this study showed that teachers reported
using reactive practices most frequently. Primary teachers reported using more recognition and hinting, while secondary teachers reported more use of aggression. Secondary teachers also reported less use of recognition. When teacher self-reports were compared with student reports collected as part of a related study, students reported that both primary and secondary teachers used higher rates of aggression and punishment than reported by teachers.

In the South Australian study previously mentioned (Sullivan et al., 2014), teachers were asked to select the classroom management practices they used most frequently to respond to student misbehaviour. Secondary teachers reported higher use of verbal reprimands and primary teachers were more likely to use a “step” system involving an increasing level of consequences for ongoing misbehaviour. Reasoning with the student was the strategy most used overall, with primary teachers reporting higher use of this strategy compared to secondary teachers. Sullivan and colleagues concluded that the strategies used by teachers to respond to problem behaviour may not take into account the underlying causes or functions of the behaviour.

Taken as a whole, Australian studies which have investigated the classroom management approach taken by teachers have suggested a discord between the practices regularly employed by teachers for classroom management, and positive behaviour support practices, which take classroom ecology and student needs into consideration. Secondary teachers are also more likely to impose disciplinary sanctions, which result in student removal from the classroom, often as a result of ongoing low-level disruptive and disengaged behaviours (Graham, 2018).

In recent years, studies focusing on the implementation of recognised EBPs for classroom management have begun to emerge, predominantly from the USA. Ficarra and Quinn (2014) asked teachers from all school sectors in the state of New York to rate their
knowledge and competency in relation to a number of evidence-based classroom management practices, using a survey based on the features established by Simonsen and colleagues (2008). Overall, teachers reported medium-to-high knowledge and competency ratings for the majority of practices. Teachers working in schools implementing SWPBS and teachers trained in special education, however, reported higher ratings compared to teachers working in non-SWPBS schools or general education, respectively. This finding possibly reflects the benefits that accrue when ongoing professional development in evidence-based classroom management practices is provided to schools implementing SWPBS, and when more behaviour-based content is provided in special education courses.

Another survey of over 600 teachers (Borgmeier, Loman, & Hara, 2016) looked at self-reported implementation of evidence-based classroom management practices across school sectors in nine districts in the northwest USA, noting the differences across responses from elementary, middle, and high school teachers. Elementary equates to primary school in Australia and, as mentioned previously, middle school and high school in the USA are equivalent to junior and senior secondary in Australia. Overall, a downward trend in implementation according to year level grouping was noted, with elementary school teachers reporting higher use of the provided practices. Middle and high school teachers reported lower use of certain practices, specifically in relation to the teaching of expectations and encouraging student engagement with academics. However, response rates among middle and high school teachers were lower than for elementary school teachers and factors impacting on different rates of use were not investigated. There were also some similarities in the extent of use of a few practices across all school sectors, with most teachers reporting high rates of use of active supervision, giving clear instructions, and provision of engaging instruction.
Two more recent surveys have investigated teacher use of EBPs for classroom management, with results indicating that teachers generally report high rates of use of these practices. Moore and colleagues (2017) surveyed 160 elementary school teachers in one south-eastern state in the USA about their knowledge and implementation of 10 sets of research-based classroom management practices. Overall, teachers reported good knowledge and frequent use of the provided practices, with higher knowledge and use of the preventative practices such as teaching routines and monitoring students. Lower levels of knowledge and use were reported for strategies used in response to problem behaviour, such as teaching replacement behaviours and designing and implementing behavioural interventions, although the majority of respondents still rated themselves as very or somewhat knowledgeable, and as using the practices very or somewhat frequently.

The second survey was conducted across four states and involved over 200 teachers from various school sectors, with the aim of investigating teacher training, use, and perceived effectiveness of 37 EBPs for classroom management (J. T. Cooper et al., 2018). Overall, it was found that receiving formal training on specific classroom management practices increased reported use but did not affect perceptions of effectiveness. However, only a third of respondents had received training in the majority of the practices. High rates of use were reported for most of the provided practices, with higher rates of use for preventative and instructional practices, such as teaching routines and providing opportunities to respond. Teachers reported lower frequency of use of most consequence and self-management strategies. For example, 26% of respondents reported not using visual performance feedback to help students monitor their behaviour, and 16% reported not using error correction. This study also found that teacher characteristics, such as gender and experience, made little
difference in the modelling conducted, suggesting that accessing formal training in classroom management practices increases use, regardless of teacher characteristics.

Fewer observational studies of teacher implementation of classroom management practices have been published, probably due to the logistical difficulties associated with collecting large amounts of observational data. Observation is often seen as more accurate than self-report (Yoder & Symons, 2010), although even so-called objective observations rely on the ability of the observer to accurately record all of the relevant information; a challenging undertaking in busy, fast-moving classrooms. Observational data, however, can provide useful information on actual use of specific practices, especially when these have been operationally defined into observable and measurable components. In addition, the use of modern technology, such as handheld devices to record behaviours as they occur, can improve the accuracy of the recorded data.

Scott et al. (2011) reported on a study where over 1,000 classrooms were observed in two elementary and two high schools in mid-western USA. Two main findings in relation to use of EBPs were reported. First, a significant proportion of time (37.9%) was coded as not teaching, despite observations taking place in designated teaching time, thus indicating that active engagement was lacking. Second, low rates of positive acknowledgement were recorded, with more negative than positive feedback being provided to students.

A similar result was reported in a study which observed 33 primary school teachers working in schools implementing SWPBS with high fidelity in one mid-western school district (Reinke et al., 2013). Low rates of specific praise and few opportunities to respond were noted. This study also surveyed teachers using The Ohio Teacher Sense of Self-Efficacy Scale (Tschannen-Moran & Hoy, 2001) and the Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1997) and found that teachers using less positive praise and with higher
rates of observed student problem behaviours reported feeling less efficacious and more emotionally exhausted. Use of harsh reprimands was associated with greater emotional exhaustion and increased disruptive behaviour. These results suggest that teacher self-assessment of classroom management efficacy and emotional exhaustion is related to the classroom management practices that they use.

**Implementation Challenges and Supports**

**Challenges**

Research from the USA has suggested there are a number of challenges facing teachers with implementation of EBPs for classroom management. In a survey of teachers in schools implementing SWPBS in the state of Illinois (Chitiyo & Wheeler, 2009), teachers cited time constraints, availability of resources, and gaining family input as barriers to classroom implementation of SWPBS. McGoey and colleagues (2014) surveyed 67 primary teachers to investigate barriers to the implementation of an evidence-based classroom behavioural intervention. Less than half of participants agreed that the intervention was feasible and all of the provided barriers to implementation were rated as serious impediments to implementation by the majority of teachers. The barriers identified as the most likely to impede implementation were lack of training and time, limited access to resources, and lack of knowledge about behavioural issues. Teachers reporting higher stress levels were more likely to perceive the barriers as more serious.

Lack of information on EBPs for classroom management has been identified as another barrier to effective implementation. Recent Australian reports have recommended the inclusion of evidence-based content in pre-service teaching courses (Teacher Education Ministerial Advisory Group, 2014) and dissemination of evidence-based practice guides by
policy-makers (Goss et al., 2017). Although access to information on EBPs for classroom management is an important first step, B. G. Cook and Cook (2016) argue that teachers are likely to be alienated by provision of information which takes a rigorous, academic approach to evidence-based practice without ensuring relevance to real classrooms. These authors make the case for “practice-based evidence,” derived from real-world settings and practitioners, to complement EBPs identified through academic research: “The top-down approach of researchers and policy-makers prescribing evidence-based practice to practitioners has not resulted in widespread implementation” (B. G. Cook & Cook, 2016, p. 150).

The need for better initial and ongoing classroom management training is widely acknowledged, both overseas (Bromfield, 2006; Pavri, 2004) and in Australia (Deloitte Access Economics, 2017; Goss et al., 2017; Queensland College of Teachers, 2015; Queensland Department of Education, 2017). Pre-service and in-service training in classroom management are equally important, with teachers often reporting feeling underprepared to manage classrooms successfully (Chesley & Jordan, 2012). Lack of sufficient classroom management content in pre-service courses has been identified as a barrier to effective classroom management in the USA and Australia (Freeman et al., 2014; Oliver & Reschly, 2007, O’Neill & Stephenson, 2011, 2014). In their review of 51 state policies and the course content of 143 teacher preparation courses in America, Freeman and colleagues (2014) concluded that there was a lack of evidence-based classroom management content in pre-service teaching courses, particularly in primary and secondary general education courses. By comparison, the Australian study (O’Neill & Stephenson, 2014) reviewed 12 prescribed text books and 19 models of behaviour management included in Australian primary pre-service teacher preparation courses and found that while some limited
course content was evidence based, it was often presented alongside other, non-evidence-based content or models, detracting from the likelihood that beginning teachers would realise the importance of selecting EBPs over other strategies.

Australian pre-service teacher training may be a specialised undergraduate course, typically a 4–year Bachelor of Education, or a 1–2-year postgraduate course for those already in possession of an undergraduate degree in another discipline. Regardless of the type of course, there is usually a blend of theoretically based content and school practicum placements. Two Australian studies have investigated the classroom management preparedness of pre-service primary teachers. Woodcock and Reupert (2012) found that Australian pre-service teachers did not feel adequately prepared in classroom management, while O’Neill and Stephenson (2012) reported that completion of coursework in classroom management increased familiarity with strategies and perceptions of confidence and preparedness, yet pre-service teachers only felt somewhat prepared to manage classroom behaviour. No studies focusing on pre-service secondary teachers were located in the process of this review.

Supports

In comparison to research into implementation barriers, more has been published in recent years on the supports for teacher implementation of EBPs for classroom management. This literature, all of which emanates from the USA, can be divided into studies looking at the effects of professional development on teacher implementation, and studies investigating the impact of professional development and follow-up coaching on teacher practices.

Professional development remains the key method used in schools to increase teacher capacity (J. T. Cooper & Scott, 2017; Queensland Department of Education, 2017; Timperley,
and a number of recent studies have demonstrated improved outcomes following professional development in classroom management. In a randomised control trial which took place over 4 years, Kamps et al. (2011) found that primary teachers who received training in a group contingency intervention increased their delivery of praise statements and decreased the number of reprimands they used. Confidence in dealing with problem behaviour has been shown to increase following training in classroom management (P. Cooper & Yan, 2015) and Reglin, Akpo-Sanni, and Losike-Sedimo (2012) found a reduction in problem behaviour and behaviour referrals following professional development in classroom management, which included use of explicit correction and understanding the underlying function of behaviour.

Two recent small-scale studies using experimental designs have reported an increase in teacher use of specific EBPs following explicit professional development on the target practices. In the first study, six teachers received scripted training in the use of behaviour-specific praise (Simonsen et al., 2017). Training included brief scripted instruction and the development of a self-management plan, and teachers also received a weekly email prompt to use the identified practice and submit data on their implementation. All teachers increased their use of behaviour-specific praise following the training, although this was not maintained in the follow-up phase when prompts and support for self-management were withdrawn. In a similar study, three primary teachers who received direct instruction and practice in use of positive acknowledgement increased their acknowledgement-to-correction ratio in comparison with a control group (C. R. Cook et al., 2017). Reduction in disruptive behaviour and increases in student engagement were also noted in classrooms of the intervention group. Due to the small sample sizes in these two studies more research is warranted to determine if similar results can be obtained with a broader range of teachers.
Several studies conducted in recent years have reported improvements in teacher implementation of EBPs as a result of coaching being delivered as a follow-up to professional development in classroom management. A review of the literature on coaching (Stormont, Reinke, Newcomer, Marchese, & Lewis, 2015) found that 86% of studies showed that coaching increased teacher use of social behavioural interventions. This review also found that performance feedback was a key component of coaching, but the individual components of coaching could not be analysed due to lack of detail in each study regarding the various elements. This review also found that definitions of coaching and its components varied across studies, and fidelity measures to assess the quality of coaching were missing from most studies.

Participation in coaching for classroom management has been rated by teachers as acceptable and useful (Marlow et al., 2015; Poduska & Kurki, 2014; Shernoff, Marinez-Lora, Frazier, Jakobsons, & Atkins, 2011), although barriers to effective implementation have been noted, including scheduling of time for coaching activities and lack of support from school leadership (Poduska & Kurki, 2014). Two studies involving randomised control trials (Farmer et al., 2013; Motoca et al., 2014) have looked at the effects of a directed consultation model on the implementation of a universal classroom management program to support early adolescent development in middle schools. Teachers receiving training and follow-up consultation support were found to use more positive feedback and to structure their classrooms more effectively for increased student engagement, and were also more able to identify students needing support to form prosocial relationships. Implementation of universal classroom management programs in primary settings, involving use of EBPs such as behaviour-specific praise and provision of prompts, has also been seen to improve when
teachers receive coaching, including opportunities for observation, performance feedback, and goal setting (Poduska & Kurki, 2014; Reinke, Stormont, Herman, & Newcomer, 2014).

Two recent multiple-baseline studies (Briere, Simonsen, Sugai, & Myers, 2015; Hagermoser Sanetti, Williamson, Long, & Kratochwill, 2018) have demonstrated increases in use of EBPs when teachers were provided with opportunities for feedback and action planning following brief training. In the first study, early-career teacher use of behaviour-specific praise was seen to increase and be maintained in a follow-up phase when scripted training and regular performance feedback from a mentor teacher was provided (Briere et al., 2015). In the second study, rates of praise and provision of opportunities for students to respond were seen to increase, while reprimands and disruptive student behaviours decreased when coaching support was provided to another small number of teachers (n = 3) by a consultant (Hagermoser Sanetti et al., 2018). Although these were small-scale studies, the results provide promise that coaching capacity can be built within schools in ways that are deemed acceptable to teachers.

There is also emerging research on the use of self-monitoring as a substitute for performance feedback delivered by a designated coach (Rathel, Drasgow, Brown, & Marshall, 2014; Simonsen, MacSuga, Fallon, & Sugai, 2013). Two studies have investigated whether teacher use of specific praise could be increased by different self-monitoring strategies. Rathel and colleagues combined emailed performance feedback with a self-monitoring component (journal writing), while Simonsen and colleagues trialled three different self-monitoring methods (keeping a tally, using a counter, using a rating scale). Both studies showed an increase in behaviour-specific praise statements for the targeted groups of teachers. While these have again been relatively small-scale studies (n = 5), the results are encouraging because they establish that self-monitoring can increase teacher use of effective practices.
This is important to know because provision of coaching and performance feedback can be prohibitive for schools due to the time and resources needed. Self-monitoring may be a more user-friendly and cost-effective way to encourage teacher take-up of practices.

Taken as a whole, accumulating evidence is pointing to the need for quality pre-service and in-service training in classroom management, preferably with follow-up coaching support to ensure effective implementation of practices. A number of recent small-scale studies undertaken with teachers in the USA have demonstrated that the implementation of specific EBPs, such as behaviour-specific praise and the provision of opportunities for students to respond, can be increased when teachers receive brief, explicit training followed by delivery of performance feedback and guided goal setting.

Calls to improve teacher access to professional development are not new (Borko, 2004), and key components of effective teacher professional development have been identified by research. These include (a) making sure that professional development is relevant to teachers, (b) recognising that professional learning takes time, (c) including teachers as active participants, and (d) encouraging collaboration among teachers (Tooley & Connally, 2016). In addition, B. G. Cook and Cook (2016) have advocated for collaboration between professional development providers and practitioners to increase the likelihood of teachers adopting research-based practices, arguing that teachers need to hear from other teachers how EBPs work in classrooms that are similar to theirs.

Guskey (2002) stated that traditional professional development, which aims to change teacher attitudes and beliefs in order for them to implement practices, fails to address the key issues of teacher motivation and the components of the change process in relation to teacher attitudes and beliefs. He proposed a model (see Figure 3) based on the premise that change in practice comes about as a result of the experience of successful implementation, directly
resulting in improvements in student learning outcomes. Thus, the professional development provides the necessary information about a practice, but it is not until teachers attempt the practice, and see that it works, that their attitudes and beliefs change.

![Diagram](image)

*Figure 3. A model of teacher change from Guskey (2002).*

More recently, academics based in the USA have proposed adoption of a multi-tiered support (MTS) framework for teacher professional development to increase implementation of EBPs for classroom management (Sanetti & Collier-Meek, 2015; Simonsen et al., 2014). The rationale for use of MTS as a framework is to establish a model for effective and efficient delivery of professional development in classroom management, including a means to determine the right level of professional development support for each teacher (Simonsen et al., 2014). The multi-tiered framework for teacher professional development aims to provide a graduated continuum of professional development support for teachers, dependent on established need. Thus, all teachers receive Tier 1 support, brief training on the essential components of EBPs for classroom management, and the opportunity to self-monitor implementation following training. Groups of teachers identified as needing Tier 2 support (for example, beginning teachers or teachers with high referral rates) receive additional practice opportunities, including a self-management component, while a minority of teachers experiencing difficulty with implementation of EBPs for classroom management receive Tier
3 support, comprising individual consultation to support implementation. This model reflects the three-tiered continuum of support for students adopted in the SWPBS framework.

The principles of prevention and reinforcement underpinning SWPBS have also been recently used to describe a framework for professional development and support aimed at increasing teacher implementation of EBPs. Researchers have suggested using contingency management to promote the acquisition and use of specific teaching skills (Myers, Sugai, Simonsen, & Freeman, 2017). Thus, desired teacher behaviours (use of empirically supported practices) are identified, and antecedents (prompting and teaching of the practices) are set up to encourage use of these behaviours. Consequences (feedback to teachers on their use of practices) are then selected to reinforce the maintenance, development, and generalisability of the behaviours. By conceptualising teacher learning in this way, researchers have posited that a more precise assessment of training and support needs is possible, thus aiding selection of the contingencies which will best support teacher acquisition and implementation of evidence-based practices.

**Bridging the Research-to-Practice Gap**

Implementation can be defined as a “specified set of activities designed to put into practice an activity or program of known dimensions” (Fixsen et al., 2005, p. 5). Implementation science is defined as the scientific study of methods to promote the systematic uptake of research findings and other EBPs into routine practice (Nilsen, 2015, p. 11). Although the research-to-practice gap has long been acknowledged within a number of disciplines (e.g., Abbott, Walton, Tapia, & Greenwood, 1999), the terminology of “implementation science” only came to be used from the mid–2000s. It was first used within the field of medicine and was concerned with the translation of research findings into regular
practice (Eccles & Mittman, 2006). Implementation science identifies the influences which facilitate or impede the uptake of EBPs and the components of effective implementation. Multiple levels of influence (Nilsen, 2015), and relationships within and across these levels, are considered in order to ensure successful implementation of evidence-based programs and practices.

Since publication of the first journal dedicated to implementation science in 2006, the science has continued to develop, with the common aim of bridging the research-to-practice gap in a number of fields, including education. According to implementation science, implementation is influenced by the cultural context, including the organisational and policy environment, which may hinder or support local efforts. A conceptual framework for implementation (see Figure 4) was developed by Fixsen and colleagues from a synthesis of the research on implementation across a number of disciplines (Fixsen et al., 2005). This framework contains five essential components:

1. a source (where the program and practice originate);
2. a destination (where the program or practice will be used);
3. a communication link (the people and dissemination methods involved in assisting implementation efforts);
4. a feedback mechanism (regular, reliable evaluation information); and
5. a sphere of influence (the overarching culture and context).
This conceptual framework can be applied to the implementation of EBPs for classroom management. The sphere of influence is the cultural context within which schools operate. This includes the policy context and prevailing beliefs about student behaviour and effective teaching. The feedback mechanism refers to information on the extent and effectiveness of implementation, such as the availability of data on teacher use of practices. The communication link relates to the ways that information, resources, and professional development are provided to support implementation efforts. The destination is schools, where the EBPs for classroom management are to be used, and the source is the distillation of the research which identifies the classroom management practices with the greatest evidence of effectiveness.

Based on what has been learned from implementation science, it is important for all components of this conceptual framework to be considered in order for implementation of EBPs for classroom management to become embedded in teacher practice. This means that barriers which may exist in the sphere of influence need to be addressed, and systems for ongoing monitoring of implementation efforts need to be put in place. Thus, school policies and underlying beliefs about student behaviour need to be examined and, if necessary, modified by a process of cultural change. Likewise, simple and acceptable ways for schools to collect and monitor data on teacher implementation of classroom management practices...
must be found. The way in which professional development is conceptualised, structured, and made available is also important. Specifically, professional development needs to be planned and monitored, and must include practice opportunities with follow-up coaching and provision of performance feedback (Fixsen et al., 2005). Typically, traditional teacher professional development training consists of “one-off” workshops, with limited opportunities for the follow-up shown to be necessary for effective implementation (Fixsen et al., 2005; Joyce & Showers, 2002). Without follow-up support, such as opportunities to reflect on practice and receive performance feedback, any improvements in implementation outcomes may not be sustained in the longer term (Fixsen et al., 2005; Hagermoser-Sanetti et al., 2018; Hattie, 2005; Timperley, 2005).

One of the main benefits of follow-up support is to increase teacher experimentation and continued refinement of practices, as a result of the additional supportive scrutiny that the coaching process brings. The associated improvements in outcomes which ensue then increase the likelihood that teachers will sustain implementation once coaching support is withdrawn. This is, in fact, the premise of Guskey’s (2002) teacher change model (see Figure 3). Before teachers attempt use of a new practice they must see it is worthwhile and do-able for them (Knight, 2009), no matter how much evidence there is in the research that it is effective. It is only after this initial take-up that attitudes and beliefs may change. Moreover, B. G. Cook and Cook (2016) warn against a top-down approach to professional development, pointing out that this approach has not previously resulted in widespread implementation. They state that teachers value evidence from other teachers over evidence from research, and advise policy-makers and researchers to partner with teachers in the design and delivery of professional development.
According to implementation science most implementation efforts fail, due not to ineffective interventions but to ineffective implementation of interventions. There is therefore a strong argument to be made for equal attention to be paid to the science and practice of implementation:

Implementation is synonymous with coordinated change at system, organization, program, and practice levels … systematic implementation practices are essential to any national attempt to use the products of science – such as evidence-based programs – to improve the lives of its citizens. Consequently, a concerted national effort to improve the science and the practice of implementation must accompany support for the science of intervention. (Fixsen et al., 2005, p. vi)

This argument has relevance to the current study. The EBPs for classroom management are known and widely endorsed, yet we are unlikely to see them consistently implemented in schools without establishing the necessary systems’ support, which includes provision of clear policy and implementation guidelines, procedures for monitoring of implementation and outcomes, availability of ongoing training and support, and support to make contextual adjustments and adaptations where needed. Implementation science can provide tools to help understand and address the reasons implementation efforts may fail, even when the evidence for what works is strong. Key EBPs for classroom management have long been known, yet consistent implementation of these practices still appears elusive. An understanding of implementation, including implementation components and capacity drivers, is essential if schools are to implement and sustain practices which have been shown to improve student outcomes and develop more positive learning environments.

**Synthesis with Links to the Current Study**

The bulk of classroom management research has been conducted in primary school settings, despite the evident need for a proactive and evidence-based approach to classroom
management in secondary schools in order to counteract the overuse of exclusionary disciplinary practices reported across Australian state jurisdictions (Graham, 2018; New South Wales Ombudsman, 2017; Victorian Ombudsman, 2017). The present research therefore chose to focus exclusively on secondary teachers, aware that the experiences of secondary school teachers are markedly different to those of primary school teachers.

The first, and perhaps most obvious, contextual factor influencing classroom management in secondary schools is that secondary teachers typically teach several classes across a range of year levels. They therefore spend less time across the school week teaching the same students, in comparison to primary school teachers, limiting the time available to build positive teacher-student relationships. The limited time available with particular classes may therefore impact on classroom management approach. For example, a primary school teacher can readily reinforce expectations with students on a daily basis as part of a regular classroom routine. Secondary school teachers may have to wait several days before seeing a particular class, making it more difficult to provide consistency of expectations.

Next, the curriculum in secondary schools tends to be delivered by designated teachers with expertise in specific subject areas. Along with increasing academic demands as students progress through year levels, the curriculum specialist model adopted in secondary schools may result in teachers placing increased importance on curriculum content and assessment rather than the establishment of effective classroom management procedures (Flannery, Sugai, & Anderson, 2009). Additionally, there may be a common belief in secondary schools that older students should know how to behave appropriately. Secondary teachers may therefore be less likely to provide acknowledgement for good behaviour and be more likely to reprimand students or provide fewer opportunities to respond (Scott et al., 2011). Finally, the nature of adolescent development may make it more likely that secondary
school students test boundaries and question authority, perhaps leading to increasing use of
disciplinary sanctions.

Queensland government statistics show a spike in disciplinary sanctions in junior secondary (Graham, 2018) and according to research undertaken in the USA (e.g., Borgmeier et al., 2016; Pas, Cash, O'Brennan, Debnam, & Bradshaw, 2015; Sugai, Flannery, & Bohanan-Edmonson, 2004) secondary school teachers tend to use some EBPs less than primary teachers and have a more reactive approach to classroom management. The present study therefore sought to extend on this knowledge and probe deeper into the factors influencing the use of classroom management practices in Queensland state secondary schools.

Survey research from the USA has found that teachers report medium-to-high levels of use of EBPs for classroom management and often report confidence in their ability to support student behaviour. A recent study has also shone some light on differences in teacher implementation of EBPs according to school sector, with middle and high school teachers reporting lower levels of implementation of some EBPs (Borgmeier et al., 2016). Moreover, observational studies conducted in secondary schools have reported low levels of use of EBPs such as behaviour-specific praise and provision of multiple opportunities to respond (Scott et al., 2011).

To date, there is a dearth of Australian research on teacher use of EBPs for classroom management (Hepburn & Beamish, 2019). Several Australian studies (Clunies-Ross et al., 2008; R. Lewis et al., 2008; Sullivan et al., 2014) have used surveys to investigate teacher-reported classroom management practices, with findings indicating that teachers underuse proactive strategies and rely on reprimands and imposition of sanctions to manage student behaviour. However, there has been an emphasis in these studies on responses to problem
behaviours once they have occurred. Therefore, this study sought to extend previous Australian survey research by investigating secondary teacher reported use of proactive classroom management practices aligning with the PBL framework adopted by many state schools in Queensland.

There is also a lack of Australian research into the implementation and outcomes of PBL implementation (Hepburn & Beamish, 2019). Studies conducted in the USA by Ficarra and Quinn (2014) and Feuerborn and colleagues (2012, 2016) suggest that teachers in schools implementing SWPBS have higher knowledge of preventative strategies and use some EBPs, especially in relation to teaching and reinforcing expectations, at higher levels than do teachers in non-implementing schools. To date, any effects of whole-school PBL implementation on teacher use of classroom management practices in Australia have not been investigated. Given the support for PBL at the policy level in Queensland state schools, this is an important area of investigation, particularly since classroom implementation of PBL has been identified as one of the factors impacting on schoolwide sustainability (Yeung et al., 2016). It remains to be seen if teachers in schools adopting the PBL framework are more likely to know and use the EBPs for classroom management, promoted within the preventative schoolwide approach of PBL. The present study therefore sought to collect information on teacher-reported use of EBPs for classroom management as an initial step in determining if the implementation of PBL in the Australian context has had any impact on teacher practice.

Teacher implementation of evidence-based classroom management practices is a field of research ripe for further investigation. The present study into the practices used most frequently by Queensland secondary school teachers, and factors impacting on teacher use, aimed to add to current knowledge about the classroom management practices favoured by
secondary school teachers in Australia. It was hoped that this information would help to unravel some of the complexities underlying current teacher approaches to classroom management, and assist in responding to the classroom management support needs of teachers. The following research questions (RQs) guided the current investigation:

RQ 1. Which classroom management practices do Queensland secondary school teachers report using frequently?

RQ 2. To what extent do these teachers perceive that they use 14 EBPs for classroom management?

RQ 3. Do teachers (a) working in schools using the PBL framework, or (b) perceiving that they have good understanding of PBL principles, report higher levels of use of EBPs for classroom management?

RQ 4. What is the impact on perceived use of EBPs for classroom management of (a) teacher demographics, such as gender, years of teaching experience, and subject areas taught; (b) having access to professional development in classroom management; and (c) confidence and concerns with classroom management?

RQ 5. What are the barriers to teacher use of EBPs for classroom management?

Conclusion

This chapter has explained the theoretical framework for this research and reviewed the literature on classroom management, beginning with early studies of teacher effectiveness and ending with emerging research on ways to support teacher use of EBPs for classroom management. A rationale has been provided for the selection of the EBPs, which are a focus of this study. Implementation challenges and supports have been identified and suggestions made about bridging the research-to-practice gap. The potential for the present study to address some of the gaps in the existing literature has been outlined. The next chapter presents the research methodology chosen to address the five research questions.
CHAPTER 3: RESEARCH METHODOLOGY

Introduction

The present study sought to investigate teacher-reported use of classroom management practices and the challenges to effective implementation. It was grounded in the tenets of behaviourism and utilised the SWPBS framework and the principles of implementation science to understand factors influencing teacher behaviour and to suggest solutions in response to implementation challenges.

The previous chapter outlined how proactive classroom management aligns with use of SWPBS as a whole-school framework for behaviour support. A summary of effective classroom management practices, identified and agreed upon by researchers, was provided as the basis for the selection of the 14 EBPs which are an important focus of the current study. Although consensus exists that these classroom management practices make a positive difference to student behaviour and engagement, research conducted in the USA has demonstrated a discrepancy between teacher-reported use of EBPs and actual implementation in classrooms. Australian survey research suggests that teachers may be more likely to use practices which aim to correct and control student behaviour, rather than practices which aim to prevent behavioural issues through preventative measures or consideration of the underlying reasons for behaviour. Furthermore, Australian reports and government statistics show high rates of exclusionary discipline practices being used, particularly in secondary schools, making the need for an evidence-based approach to classroom management even more critical for secondary school teachers (Graham, 2018; Victorian Ombudsman, 2017). Additionally, although several Australian jurisdictions have adopted PBL in an attempt to reduce exclusionary disciplinary practices, there is as yet no
evidence that PBL implementation has had any impact on teacher practice. The present study therefore attempted to establish the classroom management practices most commonly used by Queensland secondary teachers and whether the extent of their reported use of EBPs for classroom management was consistent with findings from survey research conducted in the USA. Additionally, this research sought to ascertain if asking teachers about their use of proactive practices for classroom management would enhance the findings of previous Australian survey research which has mainly investigated the ways that teachers respond to problem behaviour. This research also sought to establish teacher knowledge and use of EBPs promoted in the PBL framework, and to establish any factors influencing teacher practice, including whether implementation or knowledge of PBL has had any impact on teacher practice. Finally, the present study examined the influences on teacher selection of classroom management practices in order to establish the supports and barriers to an evidence-based approach to classroom management.

This chapter provides an overview of the research design and the research methods used to address the research questions. The nature of the research questions led to the choice of a mixed-methods methodology to investigate teacher perceptions and beliefs in relation to classroom management. A rationale for the choice of this methodology and a description of the mixed-methods design and procedures undertaken are provided. The steps involved in the data analysis and an explanation of the data analysis procedures follow. This study involved a large sample of Queensland state secondary school teachers and the chapter concludes with a description of the settings in which participating teachers worked and the sampling procedures used to recruit participants.
Research Questions

Five research questions were formulated in order to investigate the reported use of classroom management practices by Queensland secondary school teachers. The research questions addressed in this study were:

RQ 1. Which classroom management practices do Queensland secondary school teachers report using frequently?

RQ 2. To what extent do these teachers perceive that they use 14 EBPs for classroom management?

RQ 3. Do teachers (a) working in schools using the PBL framework, or (b) perceiving that they have good understanding of PBL principles, report higher levels of use of EBPs for classroom management?

RQ 4. What is the impact on perceived use of EBPs for classroom management of (a) teacher demographics, such as gender, years of teaching experience, and subject areas taught, (b) having access to professional development in classroom management, and (c) confidence and concerns with classroom management?

RQ 5. What are the challenges to teacher use of EBPs for classroom management?

Research Design

This research used a mixed-methods methodology (Mackenzie & Knipe, 2006) to investigate how teachers approached classroom management, the practices they reported using most frequently, and the challenges to consistent teacher implementation of EBPs. A mixed-methods approach was chosen because it was consistent with the aims of the research and the specific research questions (Ercikan & Roth, 2006). According to Teddlie and Tashakkori (2010, p. 11), mixed-methods designs use “qualitative and quantitative data collection techniques in either parallel or sequential phases.” In the present study quantitative and qualitative methods were combined, using the collective strengths of both approaches (Creswell, 2015) and reflecting a pragmatic approach, acknowledging that neither a purely
objectivist nor subjectivist approach would provide rounded responses to the research questions (Onwuegbuzie & Leech, 2005). In addition, the use of a mixed-methods approach served to overcome some of the biases associated with measurement of survey or interview data alone (Desimone, 2009).

An explanatory sequential mixed-methods design (see Figure 5) as described by Creswell (2012, p. 542) was selected. In this two-phase design, the first phase used a survey to identify and quantify patterns and associations in relation to teacher background, knowledge, experiences, and reported use of classroom management practices. In the second qualitative research phase, teachers were provided with the opportunity in semi-structured interviews to expand on descriptions of their classroom management approach and to discuss the factors which had influenced their current practice.

Quantitative methods, which are suited to the statistical analysis of demographic, categorical, and ordinal data, were used in Phase 1: first, to establish the patterns of secondary
school teacher use of EBPs for classroom management, and second, to determine if there were differences in the responses between certain categories of secondary school teachers. For example, did teachers working in schools implementing PBL report increased use of EBPs for classroom management? Such information could help to reveal the classroom management practices embraced by secondary school teachers in Queensland and determine the extent of use of EBPs. While this is useful information, qualitative methods, which are suited to in-depth investigation of experiences, were used in Phase 2 to gain a deeper understanding of teacher practice and the factors impacting on this. For example, how did individual teacher beliefs about classroom management impact on the actual practices used?

In Phase 1, a survey was used to capture a broad range of responses in relation to key practices, classroom management knowledge, confidence and stress, as well as demographic information which enabled the first four research questions to be addressed. Thus, the initial quantitative phase of the research provided data which enabled measurement of perceived use of classroom management practices, as had been done in a number of previous studies (e.g., Borgmeier et al., 2016; Ficarra & Quinn, 2014; Sullivan et al., 2014). However, a purely objectivist approach relying only on survey data did not allow for an exploration of the reasons underlying the implementation of practices.

In Phase 2, the phone interviews which followed initial quantitative data analysis elicited more detailed, rich information and enabled the researcher to pursue some of the underlying factors influencing teachers’ selection of practices and to gain a better understanding of the ways that teachers approach classroom management. The phone interviews gave teachers a voice and enabled their stories to be heard. In interviews teachers were asked to describe the classroom management practices they relied upon, thus elaborating on survey responses to RQ 1. In addition, teachers were asked about their
understanding of evidence-based classroom management in order to verify survey responses in relation to use of EBPs (RQ 2). Finally, influences on teachers’ selection of classroom management practices were probed, allowing RQ5 to be addressed.

Following Phases 1 and 2, results were integrated allowing implications to be drawn (Ivankova, Creswell, & Stick, 2006). The combination of broad data from the survey and detailed insight gained from interviews contributed to a better understanding of the factors impacting on teachers’ use of EBPs for classroom management. This information is important in determining what is needed to help schools develop consistency of practice in classroom management.

Research Procedures

Informed Consent

Ethical clearance to conduct the research was obtained from Griffith University and the Queensland Department of Education. An informed consent package was provided to all teachers who participated in the survey in the two schools where a paper version of the survey was used. The same informed consent package was attached to the initial e-mail to principals for forwarding to potential participants in the online survey. Information regarding participation in the research was also provided at the start of the online survey, and participants were also asked to click that they agreed to participate and had read the informed consent package before starting the survey. A separate informed consent overview was provided via a link to participants agreeing to the phone interview. Interview participants were also reminded when contacted by the researcher that their participation was voluntary and that they could withdraw at any time without question. The researcher also read a participant information and verbal consent script before the commencement of each phone
interview. Verbal consent to record the call was obtained and participants were informed when recording began and ended. Copies of the complete package of informed consent information are provided in Appendix A.

Description of Procedures

Figure 6 provides an overview of the research procedures used in this study. The quantitative phase came first and comprised an initial planning component, involving selection of research method, population, and sampling procedures. This phase was followed by the second qualitative phase. As indicated in Figure 6, the quantitative component of the study was prioritised in order to investigate the first four research questions. Following preliminary planning for Phase 1, survey questions were formulated and given to an expert group (PBL regional coordinators) prior to adjustment and finalisation in response to their feedback. The survey was then piloted with five secondary school teachers to test for question clarity and ease of completion. Following initial survey development and piloting, a paper version of the survey was administered in two secondary schools, one implementing PBL and one not implementing PBL, with the intention of comparing responses across these two schools. The online version of the survey then collected data from a statewide sample of secondary school teachers. More detailed information on data collection procedures is provided in the next section. Table 2 shows the procedures followed and the sample sizes involved at each phase.
Figure 6. Overview of research procedure.
Table 2

Procedures to Conduct the Research by Phase with Sample Size

<table>
<thead>
<tr>
<th>Phase</th>
<th>Procedure</th>
<th>Sample (n)</th>
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<tbody>
<tr>
<td>Phase 1</td>
<td>1. Survey questions given to experts</td>
<td>10</td>
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<tr>
<td></td>
<td>2. Survey question wording finalised</td>
<td></td>
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<tr>
<td></td>
<td>3. Survey piloted with teachers</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>4. Survey conducted in 2 secondary schools</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>5. Link to survey provided to Principals</td>
<td></td>
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<td></td>
<td>6. Link to survey placed on Queensland College of Teachers website</td>
<td></td>
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<tr>
<td></td>
<td>7. Statewide survey active – 6 weeks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Quantitative data analysis</td>
<td>587</td>
</tr>
<tr>
<td></td>
<td>9. Interview protocol piloted with teachers</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>10. Selection of participants (purposive sample) from survey pool</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>11. Phone interviews conducted</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>12. Qualitative data analysis using thematic coding</td>
<td></td>
</tr>
<tr>
<td>Phase 2</td>
<td>13. Synthesis and interpretation of results</td>
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<td></td>
<td>14. Reporting of results</td>
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</table>

A quantitative data analysis of the complete sample was undertaken to provide preliminary results which were used to inform the subsequent qualitative phase of the research. This second phase of the research predominantly focused on the challenges with consistent implementation of EBPs for classroom management (RQ 5), as well as adding detail to the data collected in the first phase of the research (Johnson & Onwuegbuzie, 2004). An interview protocol was developed in line with the preliminary data analysis and piloted with four secondary school teachers to ensure questions were phrased clearly and that the information collected from the interviews was useful in answering the final research question. Phone interviews were then conducted to investigate teacher experiences with classroom management in more depth. A thematic analysis followed, with results being combined with the quantitative analysis to produce a synthesised report of research results.
Data Collection

There were two main methods of data collection in this study. In Phase 1, data were collected by paper and online surveys administered over a 6-week period. Initial data collection in Phase 1 involved the completion of a paper version of the online survey by the teaching staff in two secondary schools. The online survey was then made available to secondary school teachers statewide for a period of 6 weeks. In Phase 2, data were collected via phone interviews, which took place over a 4-week period approximately three school terms after survey closure.

Phase 1

Two schools in south east Queensland were approached individually to take part in the research prior to the online survey going live. One school implementing PBL and one school not implementing PBL were selected with the intention to compare survey responses between these two schools to inform RQ 3, which aimed to investigate differences in use of practices between teachers in PBL and non-PBL schools. The schools selected were similar in size, both being Band 11 schools. Band represents school size, with Band 11 being the biggest, typically with student enrolments of over 1,000. The schools were also similar in location, both being located in close proximity to the same major highway. Each school had approximately 100 teachers on staff. The principals of each school were known professionally by the researcher and were therefore amenable to allowing staff to participate. It was made clear both to the principals and teachers that participation in the survey was voluntary and that responses could not be linked back to individuals, although an overall summary of response trends would be provided to the principals to assist with planning for professional development.
School 1. The first school involved in the paper version of the survey had a student enrolment of just under 1,200 and was in a low socio-economic area, situated in close proximity to a growing retail, commercial, industrial, and rural sector. It had an Index of Community Socio-Educational Advantage (ICSEA) rating of slightly over 900. ICSEA is a scale representing educational advantage with values ranging between 500 (very low) and 1300 (very high), with a median of 1000. This school had a substantial percentage of indigenous, Polynesian, and students from a non-English speaking background. School 1 had been implementing PBL for approximately six years. The researcher attended an informal, non-compulsory breakfast staff briefing at the first school and addressed staff present to request participation. Most of the staff agreeing to participate completed the survey at the time, while a few took unfinished surveys with them for later completion. The researcher made arrangements to collect completed surveys a week later. A number of blank surveys were also left for any other interested teachers to complete. A total of 21 surveys were collected from this school.

School 2. The second school had a slightly larger student population of almost 1,400. It was located in an area which drew student enrolments from a range of socio-economic catchment areas and had an ICSEA rating of just under 1000. The school was not formally implementing PBL, but had established behavioural expectations and clear referral procedures, as required by state education policy (Queensland Department of Education, 2018c). At the second school, time could not be found for the researcher to attend a staff meeting, so copies of the survey were provided to the school office for distribution to teachers via pigeon holes. Since return rates tend to be low for information sought in this way, a small incentive was included to encourage survey returns. A raffle ticket was attached to each survey and the chance to win one of two small prizes of food and non-alcoholic drink packs, each
worth $15 – 20, was offered. The researcher returned to the school at the end of the following week to collect returned surveys from a folder that had been left at the school office. Two surveys were then randomly selected by an office staff member and the prizes left for collection. The total number of completed surveys returned was 41.

**Statewide survey.** The survey, containing 26 questions, was then uploaded to LimeSurvey, an online survey platform available to researchers at Griffith University. Two changes were made following administration of the paper survey: Health and Physical Education (HPE) was added to the list of subjects taught, as this subject had inadvertently been left off the list in the paper survey; and an additional question in relation to teaching outside of area of qualification was added, following media reports that many secondary school teachers were teaching subjects they were unqualified to teach (Australian Education Union, 2016; Price, 2016). It was hypothesised that teaching outside of qualification might impact on classroom management approach. Emails were then sent to all state secondary school principals, inviting staff participation. A copy of the survey link and a brief description of the research was also published in the Queensland College of Teachers’ newsletter and also distributed through a Department of Education discussion list. The online survey remained active for a period of 6 weeks. At the end of this period the online survey was closed and responses were downloaded to an Excel spreadsheet.

**Phase 2**

The phone interviews were conducted 10 months after the closure of the online survey. This allowed time for the preliminary data analysis and also took into consideration school holidays and demand upon teachers. It was determined that Term 4 would not be an optimal time for interviews due to potential work overload and end-of-year exhaustion; nor would
the beginning of the year be suitable, as time would be needed for teachers to establish new classes. Interviews were therefore scheduled for the middle of Term 2 to allow time for teachers to settle in to the new school year. The researcher selected 44 participants, who had indicated they would be willing to be interviewed, to contact on the supplied phone number. Sampling was purposive, based on attaining a heterogeneous sample; therefore, an attempt was made to select a varied sample based on (a) years of teaching experience, (b) age group, (c) school location and size, and (d) subjects taught. An initial phone call, prior to the interview, was made to check if the participant still wished to agree to the interview. If so, a mutually convenient time was set for the interview to take place, and a reminder of the informed consent guidelines was provided. At the commencement of the interview phone call participants were reminded that participation was voluntary and that the call would be recorded. The interviewer alerted participants when recording began and ended. Responses were paraphrased by the researcher throughout the interviews to check for understanding, and participants were invited to add or clarify information at the end of each interview. It was not feasible to conduct member checking as only a contact phone number was supplied by participants. After all interviews had been conducted, recordings were transcribed and then erased.

**Instruments**

A teacher survey and use of a phone interview protocol were the two methods of data collection in this study. Both are common and well-established methods used in educational research (Bryman, 2006). A survey design was suited to the collection of a large number of assessments of teacher knowledge and use of EBPs for classroom management, enabling trends in the data to be readily identified and reported. Statistical analysis of survey data was
made possible through use of survey scales and assignation of ordinal values (Bryman, 1984). In this study, a survey was used to answer the first four research questions and to provide some starting points for the investigation of the fifth research question, as shown in Table 3. Although surveys have been used frequently in previous research to assess teacher-reported use of classroom management practices, no survey research conducted in Australia has focused on (a) reported use of EBPs aligning with PBL, (b) secondary teacher perceptions in relation to their classroom management approach, or (c) discrepancies between the most commonly reported classroom management practices and reported use of EBPs.

Survey. The survey comprised three parts (see Table 4) and concluded with an invitation to participate in an optional follow-up phone interview. Participants who agreed were taken to a second survey site where they were asked to provide a contact name and mobile phone number. They then answered a small number of demographic questions to assist with selection of a heterogeneous group for Phase 2 of the research. The information collected from this second website was completely separate from the initial survey so that phone interview participants could not be linked with their survey responses.

Each part of the survey collected different types of information. Part 1 was designed to provide background information which could be categorised to inform the subsequent data analysis by identifying any associations between independent and dependent variables. For example, responses from experienced and less experienced teachers could be compared to check for any differences in reported use of EBPs for classroom management. Part 2 of the survey collected data on teacher training, confidence and stress in relation to classroom management, and perceived understanding of EBPs for classroom management.
Table 3

Research Questions and Corresponding Survey Questions

<table>
<thead>
<tr>
<th>Research question</th>
<th>Survey question</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ 1. Which classroom management practices do Queensland secondary school teachers report using frequently?</td>
<td>20. Which classroom management practices do you use most frequently to maximise teaching and learning time?</td>
</tr>
<tr>
<td></td>
<td>21. Which classroom management practices do you use most frequently to respond to behaviours that interfere with teaching and learning?</td>
</tr>
<tr>
<td>RQ 2. To what extent do these teachers perceive that they use 14 EBPs for classroom management?</td>
<td>23. Think about the classes you mainly teach. Give your current workload, please indicate the extent to which you implement the following practices? (14 EBPs provided)</td>
</tr>
<tr>
<td>RQ 3. Do teachers working in schools using the PBL framework report, or who perceive that they have a good understanding of PBL principles, report higher levels of use of EBPs for classroom management?</td>
<td>15. Is your school currently implementing Schoolwide Positive Behaviour Support/Positive Behaviour for Learning?</td>
</tr>
<tr>
<td></td>
<td>18e. I understand SWPBS/PBL principles and core features.</td>
</tr>
<tr>
<td>RQ 4. What is the impact on perceived use of EBPs for classroom management of (a) teacher demographics, such as gender, years of teaching experience, and subject areas taught, (b) having access to professional development in classroom management, and (c) confidence and concerns with classroom management?</td>
<td>1–14. Background information/demographics.</td>
</tr>
<tr>
<td></td>
<td>16. Have you attended any classroom management PD?</td>
</tr>
<tr>
<td></td>
<td>17. Did your pre-service training provide a good grounding?</td>
</tr>
<tr>
<td></td>
<td>18a. I have the knowledge and skills to prevent behaviour issues.</td>
</tr>
<tr>
<td></td>
<td>18b. I understand EBPs for classroom management.</td>
</tr>
<tr>
<td></td>
<td>18c. I am confident in dealing with common behavioural issues.</td>
</tr>
<tr>
<td></td>
<td>18d. I feel stressed in relation to behaviour in my classes.</td>
</tr>
<tr>
<td>RQ 5. What are the challenges to teacher use of EBPs for classroom management?</td>
<td>19. (free-text responses)</td>
</tr>
</tbody>
</table>
Table 4

Structural Overview of Survey

<table>
<thead>
<tr>
<th>Section</th>
<th>Information collected</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part 1</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 13 questions (multiple choice) | • Demographic information  
• Background details | • Gender, age, experience  
• School location, size  
• Subject area and years taught |
| **Part 2**|                                                            |                                                                                             |
| 9 questions (Yes/No) Rating scale (5-point) free-text | • PBL knowledge and implementation  
• Classroom management knowledge and training  
• Current classroom management practices used  
• Confidence and success with classroom management | • Is your school implementing PBL?  
• Have pre-service or professional development courses helped with classroom management?  
• Rate classroom management understanding and confidence  
• Rate effectiveness of current practices |
| **Part 3**|                                                            |                                                                                             |
| 2 questions Rating scale (5-point) free-text | • Level of use of 14 EBPs  
• Additional comments on use of EBPs | • Rate extent of use of each practice on scale of never to always  
• Provide examples or expand on ratings |

There were also two open-ended questions asking teachers to list the classroom management practices they most frequently used to (a) prevent problem behaviour, and (b) respond to problem behaviour. Responses to these two questions were intended to be compared with the responses on the usage frequency of the 14 EBPs cited later in the survey. Teachers were first given the opportunity to provide free-text responses about their most commonly used classroom management practices. This was a deliberate tactic aimed at determining whether teachers were familiar with the EBPs named later in the survey. See Figure 7 for detail on the two open-ended questions and the practices provided in Part 3 of the survey.
The final part of the survey (Part 3) asked teachers to rate their frequency of use of 14 EBPs for classroom management on a 5-point scale from *never* to *always*. The use of 5-point rating scales is common in education, both in research (e.g., Castillo, March, Stockslager, & Hines, 2016; Reupert & Woodcock, 2010; Supovitz & Turner, 2000) and in evaluating professional development (e.g., The Incredible Years Program, 2012), and is thus a format with which most teachers are familiar. Little difference in results obtained from 5-, 7-, or 10-point scales has been found (Dawes, 2008).

As discussed in Chapter 2, the practices in Part 3 of the survey were selected using the five features of effective classroom management established by Simonsen and colleagues (2008) with the aim of selecting practices widely acknowledged to represent EBPs for classroom management (Mitchell et al., 2017). Descriptions of each practice were provided in Part 3 of the survey to assist with clarity and understanding and to increase the likelihood of accurate responses. Training materials based on the work of Simonsen and colleagues...
(Missouri Schoolwide Positive Behavior Support, 2016) were used to develop a description of each practice. In addition, feedback was sought from PBL regional coordinators in Queensland to finalise wording (see Appendix B for a print version of the entire survey, including the descriptions of each practice).

**Phone interview protocol.** In Phase 2, a phone interview protocol was developed to investigate teachers’ views on their school’s approach to classroom management, the effectiveness of their own classroom management practices, their understanding and attitudes towards use of evidence-based practices, and perceived challenges to effective classroom management. Phone interviews offer the researcher more flexibility than surveys because the researcher can rephrase questions and the interviewee has the opportunity to ask for clarification (Gillham, 2005; Newby, 2010). In the current study, the phone interviews allowed the survey responses to be supplemented with more in-depth information from a smaller number of respondents (Kumar, 2014) spread over many geographical locations. The researcher utilised the semi-structured interview format to explore issues in order to reach a more complete understanding of the way teachers perceive classroom management. The semi-structured phone interview provided the freedom to clarify understanding and to ask follow-up questions which opened up other explanations and answers to questions, thus adding a more personal perspective to the more generalised survey data (Newby, 2010). The interview protocol, containing discussion themes and follow-up probes, can be found in Appendix C.

Interviews, by their very nature, are interactive (Holstein & Gubrium, 2004) so the way participants responded in interviews was influenced not only by the questions asked by the researcher, but also by the manner in which these questions were posed and how the researcher managed the interview. The prior experience of the researcher in working with
teachers, using familiar terminology, and quickly building rapport were important factors in helping the interviewees feel at ease and comfortable with responding to questions. The phone interviews in this study consisted of seven thematic discussion points, seeking to expand on the information gathered by the survey and to answer RQ 5. Table 5 provides an overview of the interview themes.

Table 5

<table>
<thead>
<tr>
<th>Discussion point</th>
<th>Area of investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How does your school expect you to manage student behaviour in your classroom?</td>
<td>Seeking to find out if there is a consistent, proactive approach in place; if common practices are established; if policies and procedures are clearly communicated.</td>
</tr>
<tr>
<td>2. How would you describe your personal classroom management approach?</td>
<td>Seeking to find out if teacher has a predominantly proactive or reactive approach; personal philosophy.</td>
</tr>
<tr>
<td>3. What do you understand evidence-based classroom management to mean?</td>
<td>Seeking to discover if teachers are aware of EBPs and consider EBPs to be relevant to their classrooms.</td>
</tr>
<tr>
<td>4. Which classroom management practices do you find most effective on a day-to-day basis, given your current workload and classes?</td>
<td>Seeking to find out which strategies teachers rely on.</td>
</tr>
<tr>
<td>5. How satisfied are you with the behaviour and engagement of your current classes?</td>
<td>Seeking to determine if teachers believe that there is a need for further development of classroom management skills; whether support is needed.</td>
</tr>
<tr>
<td>6. What has helped you to develop confidence and skills or what support would help you to develop confidence and skills in classroom management?</td>
<td>Seeking to find out how teachers develop confidence and skills, or what supports would assist.</td>
</tr>
<tr>
<td>7. What are the main challenges facing you (or others) with classroom management? What could your school do better to support teachers?</td>
<td>Seeking to find out the perceived barriers to effective classroom management and the supports teachers would value.</td>
</tr>
</tbody>
</table>

The interview questions were developed to add further detail to the data collected in Phase 1 of the research. Prompts were also developed for each point to ensure that all participants had the opportunity to provide complete information and to help organise interview responses during data analysis. For example, teachers were asked to describe their satisfaction with the behaviour and engagement of their current classes, with prompts about...
students working to potential, as well as about the quality of interaction in the classroom. Question wording was finalised and prompts adjusted following a small number of pilot interviews.

Interview Questions 1 through 3 were designed to elicit additional information in relation to RQ 1: Which classroom management practices do Queensland secondary school teachers report using frequently? Interview Question 4 aimed at informing the interpretation of survey responses regarding RQ 2: To what extent do these teachers perceive that they use 14 EBPs for classroom management? Interview Questions 5 and 7 addressed RQ 5: What are the challenges to teacher use of EBP for classroom management, while interview Question 6 sought to establish teachers’ current perceptions of their confidence and skills in relation to classroom management, and the supports they perceived as useful, in order to add teacher perspective to the discussion on challenges and potential solutions. There were no specific interview questions targeted at answering RQ 3: Do teachers working in schools using the PBL framework, or who perceive that they have good understanding of PBL principles, report higher levels of implementation of EBPs for classroom management? The researcher deliberately chose not to include any mention of PBL in the interview questions or prompts, so as not to lead responses. It was hoped that any mention of PBL would arise spontaneously, allowing interviewees the freedom to talk positively or negatively about their experience of the framework in schools. Nor did any interview questions directly seek to address RQ 4: What is the impact on perceived use of EBPs for classroom management of (a) teacher demographics, such as gender, years of teaching experience, and subject areas taught, (b) having access to professional development in classroom management, and (c) confidence and concerns with classroom management? However, there was an expectation that the rich
data gathered from teachers as they reflected on their experiences would help shed light on some of the factors influencing teacher use of classroom management practices.

A few participants consented to be interviewed at the time of initial contact, but the majority arranged a time for the researcher to call back. All interviews were conducted within a 3-week period. All interviews commenced with a brief overview of the aims of the research and a definition of classroom management as “strategies or practices used to maximise engagement and create an environment conducive to learning.” The same seven open-ended questions were used in each interview (see Table 5), but prompts and follow-up questions were determined by initial responses. Most interviews took around 30 minutes, with the shortest being 10 minutes and the longest lasting 46 minutes.

**Data Analysis**

The data analysis was conducted in two stages (see Figure 8). In the first stage, quantitative data from the paper and online survey were analysed. In the second stage, qualitative data collected from phone interviews were analysed. The quantitative analysis comprised descriptive and regression analyses. The descriptive analysis provided an overall summary of the responses, while the regression analysis used a Bayesian framework to determine posterior distributions for model parameters. An initial descriptive analysis was run on the data from Part 1 of the survey to establish the composition of the participant demographics. A subsequent analysis was then undertaken to identify response frequencies for Parts 2 and 3 of the survey. Responses from Part 3 (frequency of use of identified EBPs for classroom management) were then compared with the responses in Part 2 to identify similarities and discrepancies. Finally, a regression analysis was undertaken using statistical
modelling to determine the variables impacting on reported teacher use of classroom management practices. These procedures are now reported in detail.

The first step in the quantitative data analysis was to enter data from the paper surveys into separate Excel spreadsheets. The data from the schools where the paper surveys were conducted were first analysed descriptively to determine if there were any differences in the reported use of EBPs between teachers in the school implementing PBL and those in the school not using the PBL framework. These data were then copied and merged with the online survey data to form a master Excel spreadsheet. The next step was to prepare all the survey data to ensure that responses met certain criteria and that data were coded correctly to enable analysis using R software (R Core Team, 2016). There were three criteria for retention of responses in the subsequent analysis: (1) response had to be from a teacher currently teaching at least one class, (2) responses had to be from Queensland state secondary school teachers, and (3) participants had to have answered at least some of Parts 2 and 3 of the survey. Once
responses which did not meet these criteria had been removed, responses were coded and checked for uniformity before the data file was uploaded into the R statistical package.

**Descriptive Analysis**

To begin, a descriptive analysis of responses to Part 3 of the survey (reported frequency of use of EBPs) was conducted for the two schools where a paper version of the survey was used. The percentage of teachers in each school reporting always or often using each EBP was calculated. Next, a descriptive analysis of the entire survey data was conducted to establish the response frequencies for demographics and classroom management experiences, knowledge, and confidence. The basic R statistical package (R Core Team, 2016) was used to obtain the percentages across responses for each of the questions in Parts 1 and 2 of the survey. The same process was followed to get the response rates for each component of the 5-point scale used in Part 3 of the survey to measure teachers’ perceived frequency of use of the 14 provided EBPs. Descriptive data were compared to see if there were differences in reported use of practices between teachers in PBL and non-PBL schools. Survey responses from teachers reporting a good understanding of PBL principles were also compared with responses from teachers who did not report understanding of PBL principles. The results obtained using R were also manually checked, with no anomalies found.

In Part 2 of the survey there were two open-ended questions which needed to be coded so that the responses could be “quantitized” (Driscoll et al., 2007, p. 22). One question asked teachers to name the practices they mainly used to maximise teaching and learning time, while the second asked them to list the practices they used most frequently to respond to behaviours interfering with teaching and learning. In the first instance, responses were read to locate any mention of the 14 practices listed in Part 3 of the survey. Next, responses to
each question were read by the researcher to gain an initial impression of the content. Many of the free-text comments contained descriptions of several practices or approaches which were subsequently separated into component parts. Each discrete description of a practice or approach to classroom management was then grouped together with similar descriptions. For example, “build rapport” and “get to know students” were placed in the same group. This process was repeated on separate occasions over several weeks with no substantial changes to group allocations noted across iterations. Finally, related groups were combined and given a descriptive title, thus forming six approaches to classroom management likely to be familiar to Queensland secondary school teachers. This information was then used, in conjunction with the responses to Part 3, to report on teacher perceptions about their personal classroom management approach alongside their perceived implementation of 14 EBPs for classroom management.

**Exploratory Analysis**

The initial descriptive analysis showed that the majority of responses from Part 3 of the survey fell in the *always* and *fairly often* bands, and the *occasionally* and *sometimes* bands. For the majority of the practices, the 5-point scale was collapsed to a 2-point scale of *never*-to-*sometimes* (comprising the *never*, *occasionally*, and *sometimes* responses) and *often*-to-*always* (comprising the *fairly often* and *always* categories). A 3-point scale of (1) *never*, (2) *occasionally/sometimes*, and (3) *often/always* was used for two of the practices which had a substantial number of *never* responses. Collapsing scales makes the assumption that the distance between Likert scale items is not equal, and that, in some cases, “less” can be “more” (Grimbeek, Bryer, Beamish, & D'Netto, 2005). In this case, collapsing the scale allowed clarified analysis of response patterns in relation to frequency of use of practices. It has been
shown that dichotomous and trichotomous scales perform well in comparison with an original 5-point scale (Jeong & Lee, 2016). The use of latent variable modelling within a Bayesian framework meant that collapsing the data into two different scales allowed more accurate estimation of parameters (Cowles, 1996).

An exploratory data analysis for each EBP was then undertaken to examine the data and check for inconsistencies. For example, the decision was made not to undertake modelling for two of the EBPs due to the overwhelming number of responses falling in the often category. These EBPs were “giving clear instructions for activities” and “actively monitoring the classroom,” with only four and six responses in the occasionally category, respectively. The exploratory analysis also helped to determine whether to use a binary or ordinal model for the regression analysis on the remainder of the EBPs. Table 6 displays the type of modelling undertaken for the 14 EBPs included in the survey.

Table 6

Evidence-based practices for classroom management included in survey | Model  
--- | ---  
organising the classroom management to maximise engagement | Binary  
giving clear instructions for activities | No modelling  
teaching classroom procedures and routines explicitly | Binary  
establishing, reviewing, and reteaching a small number of positively stated class rules | Binary  
actively monitoring the classroom | No modelling  
providing all students with frequent opportunities to respond | Binary  
differentiating instruction to suit the learner | Binary  
using non-verbal acknowledgement to encourage appropriate behaviour | Binary  
providing specific, descriptive feedback on appropriate behaviour | Binary  
using a classroom reward system | Ordinal  
maintaining at least a 4:1 ratio of positive to corrective feedback | Ordinal  
providing frequent prompts for appropriate behaviour | Binary  
incorporating teaching opportunity when responding to minor behavioural concerns | Binary  
consistently responding to problem behaviour | Binary

Note. aBinary model used to compare 2 categories bOrdinal model used to compare 3 categories.
The exploratory data analysis also determined the variables to be included in the subsequent regression analysis. No important differences in reported use of EBPs according to teacher or school demographics, such as teaching experience, teaching outside of subject expertise, and location of school were found. Therefore, these variables were not included in the subsequent modelling.

**Bayesian Approach to the Regression Analysis**

The next step in the data analysis was a regression analysis using Bayesian statistics. The Bayesian approach is becoming more common in the social sciences (van de Schoot, Winter, Ryan, Zondervan-Zwijnenburg, & Depaoli, 2017). Epistemologically, the uncertainty of knowledge underpins this approach to data analysis, while also allowing prior knowledge from previous research and experience to be considered as part of data analysis procedures (van de Schoot & Depaoli, 2014). An advantage of adopting a Bayesian approach for this study was the ability to arrive at posterior estimates based on the plausibility of the data (Jackman, 2009). It is also a more intuitive approach, well-suited to the present cross-sectional study which did not aim to collect data longitudinally. Figure 9 depicts a simple representation of a Bayesian approach to data analysis, showing that posterior beliefs are proportional to prior beliefs by evidence.

![Figure 9. Depiction of a Bayesian approach adapted from NSS (2016).](image)
In the frequentist paradigm, parameters are considered to be fixed unknown values, while a Bayesian approach views the parameters as random, thus allowing provision of a posterior distribution which is a probabilistic representation of the parameters. There are three main components in a Bayesian analysis, namely, the prior distribution, the sampling (likelihood) distribution, and the posterior distribution (van de Schoot et al., 2014). The prior distribution is formulated based on the researcher’s beliefs about the values of the parameters before any data collection. In this study, a non-informative prior was used because there were no prior studies on which to build a more informative prior distribution. The sampling distribution is also known as the likelihood, and is the same in both frequentist, or traditional, and Bayesian paradigms. The posterior distribution is the estimated probability distribution of the parameters to be estimated based on the multiplication of the prior distribution and the likelihood. That is, it reflects beliefs about the parameter given the prior belief before data collection, which is then updated by information from the data. The posterior distribution is influenced by the strength of the prior distribution, and this is traded off from the data distribution via sample size. As a result, the prior distribution can be influential with small sample sizes and generally contributes to the posterior with a lesser effect in large samples. In this study, the sample size of 587 was considered moderate; therefore, either a frequentist or Bayesian analysis would have been acceptable. However, using a Bayesian analysis subsequently allowed posterior distributions of fitted values to be formed, as they are a function of the parameters from the model (Jackman, 2009). This is not readily achievable in standard generalised linear modelling.
The logistic regression model can be represented as:

$$\log \left( \frac{p}{1-p} \right) = \beta x$$

where $p$ is the probability of using the practice, $x$ are the survey data and $\beta$ is the estimated coefficient (effect) of the independent variables on the outcome. Using a Bayesian model, the posterior distribution for the parameters ($\beta$) is given by the relationship:

$$p(\beta|x) \propto p(x|\beta) p(\beta)$$

The posterior distribution is proportional to the likelihood multiplied by the prior distribution. In this analysis, the relative importance of a variable on the outcome was assessed based on the posterior distribution of the parameter. The two primary measures used were the Bayesian p-value and the Bayesian 95% credible interval. The Bayesian p-value is a measure of the proportion of the posterior samples from the analysis which are above or below zero (for this particular hypothesis). The Bayesian 95% credible interval is a quantile summary of the posterior samples excluding the lowest and highest 2.5% of the draw. Figure 10 represents this distribution, showing that the Bayesian p-value equates to the number of samples greater than zero, divided by the total number of samples.

![Figure 10. Posterior distribution with 95% Credible Interval and Bayesian p-value.](image-url)
Regression analysis. Following selection of statistical models, a regression analysis of the data on self-reported teacher use of EBPs for classroom management was undertaken. For the majority of the EBPs, there were only a small number of responses (< 20) in the never category. For this reason, responses from the never category were included in the new category of never-to-occasionally, which was compared with responses in the often-to-always category. A binary logistic regression model was used to ascertain the posterior probability of identified variables impacting on teachers’ reported use of EBPs. For the 10 EBPs with < 20 never responses (see Table 6), a generalised linear model (GLM) using the binomial logit link was fitted using a Markov chain Monte Carlo (MCMC) algorithm (Martin, Quinn, & Park, 2017) within a Bayesian framework. Modelling was completed within the R statistical package (R Core Team, 2016) using the MCMCpack library (Martin, Quinn, & Park, 2011). A non-informative uniform prior for the coefficients was selected using the package default.

Table 7 displays the seven independent variables included in the model. These variables were identified in the exploratory data analysis as being associated with the outcomes for reported frequency of use of EBPs. The variables were (a) working in a school implementing PBL, (b) reporting having a good understanding of PBL principles, (c) recent access to professional development in classroom management, (d) belief in having the knowledge and skills to prevent most problem behaviours, (e) reporting good understanding of EBPs for classroom management, (f) confidence in managing problem behaviours, and (g) feeling stressed in relation to behaviour.
Table 7

**Independent Variables Included in GLM Analysis of EBP Outcomes**

<table>
<thead>
<tr>
<th>Independent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working in a school implementing PBL</td>
</tr>
<tr>
<td>Understanding of PBL principles</td>
</tr>
<tr>
<td>Attended professional development in classroom management</td>
</tr>
<tr>
<td>Have knowledge and skills to prevent problem behaviour</td>
</tr>
<tr>
<td>Understanding of EBPs for classroom management</td>
</tr>
<tr>
<td>Confidence in managing problem behaviour</td>
</tr>
<tr>
<td>Stress in relation to behaviour in classes</td>
</tr>
</tbody>
</table>

Modelling for each of the EBPs in Table 6 was performed using 100,000 iterations with a burning time of 10,000, thinned to 100. This provided a sample of 1,000 draws from the posterior distribution of each coefficient, which was subsequently reduced to every 100th draw. The resulting posterior simulations were then used as an independent sample from which posterior summaries were estimated. The tuning parameter was set at 0.5, with a Metropolis-Hastings acceptance rate of approximately 0.32. Generally, an acceptance rate which falls somewhere in the range 0.3 – 0.5 is desirable for optimal modelling (Rosenthal, 2011). Convergence was confirmed graphically using the standard R plots (R Core Team, 2016). In the case of the two EBPs which had a substantial number of responses in the *never* category, a multinomial ordinal probit model was used (Lynch, 2007) with a 3-point scale of (1) *never*, (2) *occasionally/sometimes*, and (3) *often/always*. Selection of this model was a natural extension to the previous procedure as there were more than two ordinal response categories (Agresti & Wiley, 2010). The multinomial ordinal probit model was run on “using a classroom reward system” and “maintaining at least a 4:1 ratio of positive to corrective feedback.” This modelling consisted of 100,000 iterations, thinned to 100 with a tuning parameter set at 0.18, and a Metropolis-Hastings acceptance rate of approximately 0.35. See Appendix D for the algorithms used for each model.
Using the Bayesian model, posterior summaries were calculated. Coefficients which did not display a 95% credible interval excluding zero were dropped from the model. The resulting more parsimonious model was rerun to provide a final posterior estimate of parameters. Variables including unsure responses were not reported, due to the difficulty of assigning meaning to this group. Posterior distributions of fitted values under various conditions were plotted in the form of mean and credible intervals to illustrate the plausible range of the outcome.

**Thematic Analysis**

As discussed previously, phone interviews were recorded and transcribed, with the permission of participants. A thematic analysis was then conducted, following the six phases of thematic analysis proposed by Braun and Clarke (2006). Thematic analysis allows for “identifying, analysing and reporting patterns (themes) within data” (Braun & Clarke, 2006, p. 79). The thematic analysis of data in this study focused on teachers’ perceptions regarding challenges to teacher use of EBPs for classroom management (RQ 5), with attention to information adding detail to the first four research questions. Table 8 displays the steps involved at each phase.

Table 8

*The Six Phases of Thematic Analysis from Braun and Clarke (2006)*

<table>
<thead>
<tr>
<th>Phase</th>
<th>Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Familiarising yourself with your data</td>
</tr>
<tr>
<td>2</td>
<td>Generating initial codes</td>
</tr>
<tr>
<td>3</td>
<td>Searching for themes</td>
</tr>
<tr>
<td>4</td>
<td>Reviewing themes</td>
</tr>
<tr>
<td>5</td>
<td>Defining and naming themes</td>
</tr>
<tr>
<td>6</td>
<td>Producing the report</td>
</tr>
</tbody>
</table>
In Phase 1, recordings were transcribed and then cross-checked with the original audio files for accuracy. Transcriptions were then read, first for familiarisation, then again to note initial thoughts. In Phase 2, each transcription was read again and initial codes were identified by use of the review function in Microsoft Word to insert comments. At this stage all units of meaning were coded, regardless of potential significance, so that themes could emerge from the data without undue influence from the researcher. Phase 2 was subsequently repeated after a 2-week period and the two sets of comments were scanned for consistency in allocation of initial codes. Next, in Phase 3, comments were printed and cut up then codes were grouped together according to topic or commonality of ideas, using an inductive approach. Each group was given a provisional name to assist with identification of themes. In Phase 4, several iterations of the coding process were undertaken to ensure that themes were adequate to describe the data set and inclusive of all the interview data (Roulston, 2014). Initial groups of coded comments were assigned to three main themes suggested by patterns of meaning in the coded comments and relevance to the research questions. Where coded comments could fit across more than one group, a copy of the comment was made and included in as many groups as needed. To enhance validity the researcher met with her supervisors regularly throughout the coding process to check interpretations through a process of critical discussion (Cho & Trent, 2006). As a result of this process some comments were re-assigned and a small number were discarded due to irrelevance to the research questions, or incompatibility with identified themes. At the conclusion of this phase, groups of comments were re-read and the allocation of comments to the main themes was then confirmed. In Phase 5 all the comments assigned to the tentative themes were re-read to ensure consistency and to begin to develop a narrative for each theme. Consideration was
given to how each theme fitted within the broader analysis and a thematic map was developed. Finally, in Phase 6, a narrative report of the themes was prepared.

**Summary and Reporting**

Lastly, results from the survey and interview data analyses were synthesised. First, an overview of the trends and patterns in the quantitative data were presented, then important topics were elaborated upon through a more in-depth discussion of the themes identified in the qualitative interview data. Pseudonyms were assigned to each interviewee and used in the final reporting to ensure anonymity. The final results were reported using a combination of graphical summaries and narrative examples in order to construct a comprehensive and coherent report of the research findings.

**Settings**

The settings for the study were government secondary schools in Queensland. In 2016, there were 182 state secondary schools in Queensland, catering for students aged 11 – 18, across Years 7 – 12 (Queensland Department of Education, 2019c). The majority of Queensland state secondary schools are located in metropolitan or rural areas, with a minority in provincial cities or more remote locations. Figures 11 and 12 provide the distribution of state secondary schools across DoE zones and regions. There are also a large number of non-government secondary schools throughout Queensland, but these were not within the scope of the current study.
The study population was state secondary school teachers. There are approximately 14,000 full-time teaching positions in Queensland state secondary schools (Queensland Department of Education, 2017). According to the Queensland College of Teachers’ register, around three-quarters of all Queensland teachers are female, and approximately half are aged 45 or over (Queensland College of Teachers, 2016). Demographics were not available by school sector, but secondary schools typically have more male teachers than do primary schools. Due to the higher concentration of secondary schools in higher population centres, the majority of secondary school teachers are working in south east Queensland, as illustrated in Figures 11 and 12.
Sample

This study used two sampling procedures. In Phase 1, purposive sampling was used initially to identify two schools implementing or not implementing PBL, then convenience sampling was the only efficient way to obtain survey responses from secondary school teachers throughout the state of Queensland. Since approval to conduct research in state schools relies on initial contact with principals, researchers are unable to contact teachers directly to request participation in research (Queensland Department of Education, 2018b). This meant that the researcher had to rely on principals passing on the link to the survey and interested teachers responding. In the second phase of the research, purposive sampling was again employed to enable the researcher to select a heterogeneous range of participants, based on length of time teaching, age, subjects taught, size of school, and location. Table 9 provides an overview of the sampling procedures used in this study.

Table 9

Types of Sampling Used in Each Phase with Population and Actual Participant Numbers

<table>
<thead>
<tr>
<th>Phase</th>
<th>Sample type</th>
<th>Population</th>
<th>Population (N)</th>
<th>Actual participants (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Purposive</td>
<td>Teachers from two secondary schools in south east Queensland for paper survey</td>
<td>200</td>
<td>62</td>
</tr>
<tr>
<td>1b</td>
<td>Convenience</td>
<td>Secondary school teachers from all Queensland state secondary schools for online survey</td>
<td>&gt;14,000</td>
<td>604*</td>
</tr>
<tr>
<td>2</td>
<td>Purposive</td>
<td>Interview group drawn from survey participants</td>
<td>95</td>
<td>26</td>
</tr>
</tbody>
</table>

Note. *Equates to number of surveys submitted; 587 remained for analysis following application of criteria.
Chapter Summary

This chapter has laid out the research questions and the research design for addressing these questions. The research procedures across two phases have been explained, and the procedures for data collection have been detailed. The two data collection instruments, a survey and a phone interview protocol, have been presented and the steps in the data analyses have been outlined. Finally, a description of the secondary settings for the study has been provided and the sampling procedures have been presented. The next two chapters provide the results from the analyses of data from the survey and interviews, respectively.
CHAPTER 4: SURVEY RESULTS

Introduction

This chapter presents the findings from the survey analysis. As described in the previous chapter, a survey was developed to collect data from secondary school teachers about their teaching background and their perceptions in relation to classroom management. The sample for this investigation consisted of teachers currently teaching in Queensland state secondary schools. A total of 587 survey responses were analysed, following elimination of 79 responses mainly due to failure to respond to any questions in relation to use of classroom management practices in Parts 2 and 3 of the survey. A number of responses from non-practising classroom teachers such as deputy principals and advisory teachers were also eliminated.

Respondent Demographics

Part 1 of the survey asked teachers to respond to a number of questions about individual and school demographics. This information was used in part to address RQ 4: *What is the impact on perceived use of 14 EBPs for classroom management of (a) teacher demographics, such as gender, years of teaching experience, and subject areas taught, (b) having access to professional development in classroom management, and (c) confidence and concerns with classroom management?* The survey sought to obtain responses from a wide range of teachers in a variety of schools throughout the state in order to achieve a representative sample. The first stage of the data analysis was therefore to conduct a descriptive analysis, using R software (R Core Team, 2016), to establish the distribution of responses across all questions in the first part of the survey.
**School Location and Size**

Figure 13 displays the distribution of school location for respondents. The vast majority of respondents (80%) were teaching in secondary schools in metropolitan areas. In this study, schools were considered to be in a metropolitan area if they were located in the Brisbane, Logan, Ipswich, Sunshine Coast, or Gold Coast areas. Around 12% of respondents were located in regional centres, 5% in country areas, and 4% in remote locations. Regional centres were characterised as small cities or large towns outside the south east corner of the state, such as Cairns, Toowoomba, and Rockhampton. Schools in country areas were considered to be those within 100 kilometres of a metropolitan or regional centre, and schools over 100 kilometres from a regional centre were categorised as remote. According to DoE data, approximately 60% of all state secondary schools are in the metropolitan area, with around 40% located in provincial cities or rural areas (Queensland Department of Education, 2019c).

![Figure 13. School locations for survey respondents.](image)

Figure 14 shows the school size distribution. Most respondents were teaching in a school of 1,000 – 1,499 enrolments (62%), with 18% in schools with enrolments of 600 – 999, and 12% in schools with enrolments above 1,500 students. This pattern reflects the large
number of responses from teachers in schools located in metropolitan areas where secondary school sizes tend to be at the upper end of the scale.

![School sizes by number of enrolments.](image)

**Figure 14.** School sizes by number of enrolments.

**Teacher Demographics**

Females made up 68% of survey respondents, reflecting the predominantly female composition of the teaching profession. Queensland teacher demographics show that 75% of all registered teachers are female (Queensland College of Teachers, 2016). The slightly lower percentage of females responding to the survey takes into account the higher proportion of male teachers typically found in the secondary sector.

Figure 15 displays the age distribution of respondents. The majority of respondents were aged between 30 and 59, again matching with state data which show that 72% of Queensland teachers are in this age group (Queensland College of Teachers, 2016). Over half of survey respondents were aged over 40, with only a small proportion falling into the youngest age group of 20 – 29. This pattern is reflective of the aging nature of the teaching profession in general.
Figures 16 and 17 display the results for teaching experience and qualifications. Most survey respondents were experienced teachers with more than 6 years of teaching experience, and holding a Bachelor degree in education. Teachers with 5 or fewer years of teaching experience comprised 20% of survey respondents, while 22% had between 6 and 10 years of experience, 30% had 11 – 20 years of experience, and 28% had over 20 years of experience. The majority of the teachers surveyed (64%) held a Bachelor degree, with a notable number (20%) having a Graduate Diploma in Education. This is not surprising, given that entry into secondary school teaching may be achieved through undertaking a Graduate Diploma following completion of an initial undergraduate degree.

Figure 15. Age groups for survey respondents.

Figure 16. Number of years teaching for survey respondents.
Figure 17. Highest educational qualification for survey respondents.

**Teaching Conditions**

Figure 18 shows the employment basis of respondents. Most respondents were permanent full-time employees (78%), with 13% in contract positions and 9% in permanent part-time positions. Less than 1% of responses came from relief teachers. Relief teachers are generally on call across a number of schools to replace teachers who are absent, on a day-by-day basis. Typically, they do not receive internal school communications so the small number of relief teachers responding to the survey is to be expected.

Figure 18. Employment basis of survey respondents.

Figure 19 shows responses for role of respondents. The majority (69%) of respondents were classroom teachers, with 19% being heads of department and 7% year level
coordinators, positions which typically involve a partial teaching load. Three percent identified as *other*; for example, music specialists or teacher librarians. Two percent of respondents identified as support staff, such as learning support teachers or coaches. These responses were included in the sample for analysis because such positions typically include some classroom teaching. Survey responses indicated that all groups of respondents were currently teaching at least one class.

![Figure 19. Roles of survey respondents.](image)

**Subject Areas and Workload**

Figure 20 displays the distribution of subjects taught by respondents. The main subject areas taught were English/Humanities (42%), Maths (29%), and Science (25%). There was a fairly even spread of other teaching areas, such as Health and Physical Education (11%), Special Education (11%), the Arts (12%), Manual Arts/Home Economics/Vocational Education (16%), and Graphics/Information Technology (IT)/Business (13%). A small percentage (6%) taught a language other than English (LOTE). These percentages are a fairly accurate reflection of the relative time allocations for different subjects in the Australian secondary school curriculum (Australian Curriculum, Assessment and Reporting Authority, 2018). It should be noted that special education teachers could be teaching all or most
subjects to students in a special education program, or could be mainstream teachers teaching their subjects to one or more special education classes.

Figure 20. Subject areas taught by survey respondents.

Figure 21 shows the percentage of respondents teaching within their area of qualification. A minority of respondents were teaching subjects areas they were not qualified to teach, with approximately 5% teaching no subjects within their area of qualification, and a further 5% teaching mostly outside their area of qualification. A further 10% were teaching two to three subjects outside their qualification. There were 17% teaching one subject outside their area of qualification, with 63% teaching solely within their area of qualification. This information is consistent with recent Australian research. For example, according to the Australian Education Union (2016), more than 50% of principals surveyed for an annual report said that maths and science classes were regularly taught by teachers not qualified in these areas.

In this survey, 39% of teachers reported teaching more than 20 hours per week, which would indicate they have a full teaching load. A further 30% reported teaching between 15 and 19 hours. Figure 22 shows teaching hours for survey respondents. The typical school week in Queensland contains around 30 hours available for teaching. Secondary school teachers have a maximum of 20 hours and 40 minutes a week available for face-to-face
teaching duties (Queensland Teachers' Union, 2018), and number of classes taught will vary, depending on the subject areas taught and whether the teacher has time available for supervision of classes to cover absent staff.

![Figure 21. Subjects taught outside of qualification.](image)

![Figure 22. Reported number of teaching hours per week.](image)

Figure 23 shows the number of students taught by respondents. Class sizes in secondary schools vary, depending on size and location of school, and subject areas. Maximum class sizes range from 25 to 28, depending on year level. Typically, teachers who are teaching the same subject, with a shorter time allocation, across multiple classes will teach larger numbers of students. For example, a LOTE specialist teaching a language two periods a week to all junior classes could end up teaching 10 different class groupings. On the other hand, a teacher responsible for elective subjects in the senior school could teach...
only a small number of students despite having a full timetable. Of the teachers completing the survey, 12% reported teaching over 150 students. Almost half (45%) reported teaching between 90 and 149 students weekly, while 20% taught between 60 and 89 students. Finally, 16% of respondents reported teaching 30 to 59 students, with 7% teaching fewer than 30 students per week.

![Bar chart showing the number of students taught weekly](image)

*Figure 23. Number of students taught weekly.*

**Year Levels**

Figure 24 displays the year levels taught by survey respondents in the current year. It is typical in the secondary setting for teachers to have a number of different year levels, although it is also common for some teachers to have exclusively junior or senior classes. Respondents in this survey were asked to indicate all of the year levels they were currently teaching. Overall, there was a slightly higher number of respondents who reported teaching senior classes (Years 10 – 12), and a slightly lower number who were teaching Year 7. The latter could be due to the common Queensland practice of having designated Year 7 teachers who have little or no contact with other year levels (Graham, 2018).
Summary

Part 1 of the survey collected data on teacher and school demographics and background information on teacher timetabling and workload. The majority of the teachers who responded to the survey were female, aged over 40 years, and teaching in a large secondary school in the metropolitan area. Most of the teachers who responded were experienced teachers with a Bachelor degree in education. Classroom teachers employed on a permanent full-time basis made up the majority of survey respondents. Most respondents were teaching across a range of subject areas, mainly within their area of qualification. Most reported having a high-to-very-high workload, teaching mainly large numbers of students for over 15 hours per week. Teachers currently working across all secondary school year levels were represented in the survey, with teachers of senior classes having slightly higher representation. Overall, the demographics for survey respondents fit well with statewide secondary teacher demographics, with perhaps slightly higher representation in the survey responses for (a) experienced teachers, (b) teachers working in schools in the south east corner of the state, and (c) teachers of senior classes.
Classroom Management Beliefs and Experience

The second part of the survey collected information on teacher beliefs and experiences in relation to classroom management preparation, understanding, and confidence. This information was used in part to address RQ 4: *What is the impact on perceived use of EBPs for classroom management of (a) teacher demographics, such as gender, years of teaching experience, and subject areas taught, (b) having access to professional development in classroom management, and (c) confidence and concerns with classroom management?*

Respondents were asked to state if they had attended professional development in classroom management in the previous 18 months, and if they felt their pre-service teacher training course had provided them with a good grounding in classroom management.

Approximately half of the teachers surveyed (51%) had attended professional development on classroom management in the last 18 months, with almost half of this professional development being provided by the school (i.e., in school). A further 14% had attended regional professional development, 9% had attended professional development provided externally to DoE, and 31% did not state the provider. Figure 25 displays the distribution of professional development providers.

The majority of teachers (64%) did not feel that their pre-service training had provided them with a good grounding in classroom management, with those who provided comments stating that courses were too theoretically based and that they only learned skills in classroom management from actual experience in the classroom.
Figures 26 and 27 display the results for respondent agreement with a number of statements in relation to their classroom management knowledge, confidence, understanding, and stress levels. Despite the perceived shortcomings of pre-service teacher training reported, respondents overwhelmingly reported that they (a) had the knowledge and skills to prevent common behaviour issues, (b) had a good understanding of EBPs for classroom management, and (c) were confident they could deal effectively with common problem behaviours.
Responses in relation to feeling stressed about behaviour in some or all classes were a little more mixed, with 58% reporting not feeling stressed about behaviour, although 29% agreed, and 7% strongly agreed to feeling stressed about behaviour. The number of teachers agreeing or strongly agreeing to feeling stressed in relation to behaviour represents over a third of respondents, which is slightly less than figures reported in previous Australian research. It has previously been reported that 46% of secondary school teachers report feeling stressed in relation to student behaviour (Sullivan, Johnson, Owens, Conway, & Taddeo, 2012).

![Figure 27. Teacher agreement on feeling stressed in relation to classroom behaviour.](image)

Two questions in Part 2 of the survey were designed in part to address RQ 3: Do teachers working in schools using the PBL framework or who perceive that they have good understanding of PBL principles report higher levels of implementation of EBPs for classroom management? The first survey question asked respondents: “Is your school currently implementing Schoolwide Positive Behaviour Support (SWPBS), also known as Positive Behaviour for Learning (PBL)?” Figure 28 displays the results for this question. Across Queensland in 2016, approximately 30% of secondary schools were implementing PBL (Deloitte Access Economics, 2017). In the current survey, 51% of respondents said they were teaching in a school implementing PBL, with 36% in non-PBL schools and 12% unsure.
PBL is a whole-school approach with a strong emphasis on the involvement of all staff, so uncertainty about implementation should be an indicator that the school is not implementing PBL, or not implementing PBL effectively.

Figure 28. Survey respondents teaching in a PBL school.

Part 2 of the survey also asked respondents to rate their agreement with the statement, “I understand PBL principles and core features” on a 5-point scale from strongly agree to strongly disagree. Figure 29 presents the distribution of responses to this question. Agree was selected by 38% of respondents, 25% selected unsure, 18% selected strongly agree, 11% selected disagree, and 7% selected strongly disagree. This distribution is consistent with the number of respondents teaching in schools implementing PBL, the expectation being that teachers in PBL schools would perceive higher levels of PBL understanding than those in non-PBL schools, although it is possible that some teachers in non-PBL schools may previously have worked in schools implementing PBL, and therefore understand its principles and features.
Use of Classroom Management Practices

In order to find out which classroom management practices Queensland secondary school teachers reported using most often (RQ 1), respondents were asked to answer two open-ended questions. This was a deliberate strategy to allow teachers to write freely, without being influenced by a provided list (O'Cathain & Thomas, 2004). The first question asked respondents to list the classroom management practices they used most frequently to maximise teaching and learning time, while the second asked which classroom management practices they used most frequently to respond to behaviours that interfere with teaching and learning. The main purpose of having these open-ended questions was to add to the quantitative survey data by using the free-text responses to generate a comprehensive list of the classroom management practices that teachers perceived they used in day-to-day practice.

Approximately 71% of respondents provided responses to the two open-ended questions. These responses came from across the entire survey sample and were not analysed according to demographics or other characteristics. Responses ranged from brief comments of under six words to longer responses which detailed a range of different strategies. In order to quantify these responses to establish broad response trends, a manual process of component coding, using assignation of colours to denote comments similar in meaning, and

![Figure 29. Survey respondents' reported understanding of PBL principles and core features.](image-url)
synthesis was undertaken (see Figure 30). For example, the comments “keeping students active and on task” and “I make my classes interesting and ensure that students can achieve” were coded green and given a descriptive title of *engagement/variety/keep busy*. This category was then combined with other related categories, such as *lesson organisation* to form a distinctive classroom management approach entitled *use of instruction and engagement*. Six discrete approaches describing the ways that teachers reported (a) preventing and (b) responding to problem behaviour were formed in this way, allowing the approaches to emerge from the comments provided by teachers in their free-text responses. Finally, the number of comments assigned to each approach was counted in order to analyse the data quantitatively.

<table>
<thead>
<tr>
<th>Original comments</th>
<th>Grouping of comments</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original comments broken into component parts</td>
<td>Each component part colour coded and grouped with similar comments</td>
<td>Related groups brought together and given a descriptive title</td>
</tr>
<tr>
<td><em>Example</em></td>
<td><em>Example</em></td>
<td><em>Example</em></td>
</tr>
<tr>
<td>&quot;Knowing the needs of students&quot; and &quot;providing a variety of learning activities&quot;</td>
<td>Knowing the needs of students = (differentiation/knowing individuals)</td>
<td>Differentiation/knowing individuals + involving parents as partners + teacher positive attitude + rapport/relationships =</td>
</tr>
<tr>
<td></td>
<td>Variety of learning activities = (engagement/variety/busy)</td>
<td>Establish positive relationships and know students</td>
</tr>
</tbody>
</table>

*Figure 30. Coding process for open-ended responses, with examples.*
The resulting six approaches to maximise teaching and learning were (1) use of instruction and engagement, (2) use expectations, routines, and consistency, (3) establish positive relationships and know students, (4) rely on reactive responses, (5) use the Essential Skills for Classroom Management (ESCM), and (6) provide acknowledgement and rewards.

ESCM is a professional development package for classroom management widely available to schools in Queensland. In its current version it is available to DoE staff for download from the DoE Learning Place website. It is also frequently delivered to teachers face-to-face by regional trainers, or in schools by experienced teachers or school leaders. ESCM is based on the work of Christine Richmond who developed the Balance Model to describe the optimum conditions for effective classroom management (Richmond, 2007). There are 10 essential skills, divided into three domains: expectations, acknowledgement, and correction. These skills were selected based on Richmond’s work as a behavioural consultant in the Queensland Department of Education in the 1990s. Richmond and colleagues observed the classroom management practices used by effective teachers, concluding that the teachers with higher rates of curriculum-focused time used a balance of setting clear expectations and provision of more frequent acknowledgment for appropriate behaviour than correction for misbehaviour. Table 10 provides an overview of these domains and the associated skills.

Table 10

<table>
<thead>
<tr>
<th>Overview of ESCM (Richmond, 2007)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expectations</strong></td>
</tr>
<tr>
<td>Establishing expectations</td>
</tr>
<tr>
<td>Giving instructions</td>
</tr>
<tr>
<td>Waiting and scanning</td>
</tr>
<tr>
<td>Cueing with parallel acknowledgment</td>
</tr>
</tbody>
</table>

*Note. Skills assigned to domains according to DoE Essential Skills for Classroom Management Training Package (Queensland Department of Education, 2015).*
Table 11 outlines the six approaches to maximise teaching and learning, with examples of the comment content incorporated in each approach. Table 12 provides an overview of the approaches for responding to behaviours that interfere with teaching and learning. The labels used to name the approaches, based on the examples provided by respondents, were (1) *reprimand, steps, and sanctions*, (2) *use a continuum of practices*, (3) *give minimal response or redirection*, (4) *use ESCM*, (5) *positively correct*, and (6) *positive relationships*.

Table 11

Assigned Approaches to Maximise Teaching and Learning

<table>
<thead>
<tr>
<th>Instruction and engagement</th>
<th>Expectations/consistency</th>
<th>Positive relationships</th>
<th>Reactive responses</th>
<th>ESCM&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Acknowledge or reward</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Lesson organisation</td>
<td>- Having clear expectations</td>
<td>- Teacher positivity</td>
<td>- Warning</td>
<td>- ESCM package named</td>
<td>- Give positive feedback</td>
</tr>
<tr>
<td>- Monitoring/movement/proximity</td>
<td>- Routine/structure</td>
<td>- Building rapport</td>
<td>- Reprimand</td>
<td>- Two or more ESCM named</td>
<td>- Acknowledge appropriate behaviour</td>
</tr>
<tr>
<td>- Engagement/viety/keep busy</td>
<td>- Seating plans</td>
<td>- Positive relationships</td>
<td>- Sanction</td>
<td>- verbatim</td>
<td>- Give a reward</td>
</tr>
<tr>
<td>- Clear instructions</td>
<td>- Consistency/follow up</td>
<td>- Differentiate/know individuals</td>
<td>- Removal from classroom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Use names</td>
<td>- Gaining attention/waiting</td>
<td>- Parents as partners</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Cooperative learning</td>
<td>- Prompts and cues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Teaching expectations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. <sup>a</sup>Use of strategies from the Essential Skills for Classroom Management package.*
Table 12

Assigned Approaches for Responses to Behaviours that Interfere with Teaching and Learning

<table>
<thead>
<tr>
<th>Reprimand, steps, sanctions</th>
<th>A continuum of practices(^a)</th>
<th>Minimal response</th>
<th>ESCM(^b)</th>
<th>Positively correct</th>
<th>Positive relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Removal from classroom</td>
<td>• Reference to using a continuum</td>
<td>• Proximity</td>
<td>• Remind of expectation</td>
<td>• Follow up individually</td>
<td></td>
</tr>
<tr>
<td>• Move within classroom</td>
<td>• Prevent/ minimise problems first</td>
<td>• Non-verbal prompt</td>
<td>• Teach the expectation</td>
<td>• Build positive relationship with students</td>
<td></td>
</tr>
<tr>
<td>• Detention</td>
<td>• Follow school policy from least to most intrusive</td>
<td>• Redirect</td>
<td>• Acknowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Steps/warnings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Home contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Verbal reprimand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. \(^a\)A range of strategies, ranging from least to most intrusive. \(^b\)Use of strategies from the Essential Skills for Classroom Management package.

This inductive coding process allowed the approaches to classroom management to emerge from the teacher responses, rather than responses being assigned to a predetermined category. In this way, responses could be categorised based on the commonalities which had emerged in the initial component analysis. The resulting themes encapsulated the most commonly reported classroom management practices as well as capturing the essence of the different classroom management approaches embraced by teachers in this study.

Practices Used Most Frequently to Maximise Teaching and Learning Time

Figure 31 presents the results for the approaches to classroom management aimed at maximising time available for teaching and learning. Approaches were drawn from self-reported identification of the practices most frequently used, as previously described.
Figure 31. Classroom management approaches to maximise teaching and learning time.

Just over a third (35%) of respondents listed practices which fell into the approach *use expectations, routines, and consistency*. Practices were assigned to this category when teachers gave examples in relation to establishing and setting clear expectations for activities and/or behaviour, having predictable classroom routines which students were expected to follow, and being consistent with routines and consequences. Many teachers mentioned the importance of having clear expectations and routines in place from the start, and consistently following through with consequences when expectations were not met.

The next most frequently assigned approach for practices used to maximise teaching and learning time was *use the Essential Skills for Classroom Management (ESCM)*. Responses were assigned to the approach *use the ESCM* when the package was mentioned by name, or two or more strategies contained in the package were named verbatim. A quarter of those who responded to this question (25%) cited use of the ESCM as their most frequent classroom management approach to maximise teaching and learning time.

The next most frequently used approach was *use of instruction and engagement*, with 20% of respondents listing strategies which placed focus on engaging students through the
curriculum and effective instruction. Teachers talked about the importance of having varied, relevant, and interesting lessons, making learning goals clear, and being organised.

The remaining categories of establish positive relationships and know students, provide acknowledgement and rewards, and rely on reactive responses were each mentioned by fewer than 10% of respondents. Teachers citing the importance of establish positive relationships and know students (8%) talked about building rapport with students, showing respect to students, and getting to know students and their individual differences. Practices such as giving rewards (e.g., stickers or points), praising student behaviour, and providing positive feedback were assigned to the approach provide acknowledgement or rewards and were cited by 6% of respondents. The classification rely on reactive responses (6%) was used for practices with a focus on responding to problem behaviour, as opposed to setting the scene for positive behaviour. Practices mentioned by teachers included moving students within the classroom or reprimanding and sending students out of the classroom. Responses were assigned to this category when the main focus was on aversive consequences for problem behaviour.

Teachers were also asked to comment on the effectiveness of the strategies they used by selecting from three choices: work most of the time; work some of the time; and rarely work. Responses indicated that teachers were generally satisfied with their current strategies to maximise teaching and learning time. Only 1% felt that the strategies rarely worked, while 79% felt they worked most of the time, and 20% said they worked some of the time.
Practices Used Most Frequently to Respond to Behaviours That Interfere With Teaching and Learning

Teachers were also asked to list the practices they most often used to respond to behaviours that interfered with teaching and learning. Figure 32 displays the most commonly used approaches to respond to behaviour interfering with teaching and learning, based on self-reported identification of the practices most frequently used. Most responses to this question fell into the category of reprimand, steps, or sanctions, with 42% of the responses providing examples such as giving detentions and warnings, moving students to another seat, contacting parents, and sending students to buddy classes or withdrawal rooms.

The next most common approach for practices used to respond to behaviours that interfere with teaching and learning was give minimal response and redirection, with 25% of responses. Examples of practices assigned to this category were tactically ignoring the behaviour, use of proximity and non-verbals to cue students, and redirecting the student to the learning. These are all examples of strategies contained within the ESCM package, but were considered as a separate category, as ESCM was not explicitly named and the wording did not exactly match with that used in the package.

![Figure 32. Classroom management approaches to respond to behaviours that interfere with teaching and learning.](image)
The approach *use a continuum of practices* was identified in 11% of responses. Comments were assigned to this approach when the answer provided referred to use of a continuum of responses, from least-to-most intrusive, and moving from proactive to reactive. Practices assigned to the category *positive relationships* made up 9% of responses and included speaking to students individually, building positive relationships, and considering individual differences. The use of ESCM was mentioned explicitly by 9% of respondents (assigned to the category *ESCM*). The final category *positive correction* comprised 3% of responses and was used when a response clearly identified an instructional approach to correction, including the need to reteach and acknowledge expected behaviours.

Overall, teachers reported favourably on the perceived effectiveness of their identified strategies for responding to behaviours that interfered with teaching and learning time, with 72% believing that the strategies worked most of the time. Fewer than 2% believed their nominated strategies rarely worked, with 26% thinking they worked some of the time. This result indicates slightly less confidence in the response strategies in comparison with the prevention strategies, which may reflect the complexity of dealing with problem behaviours in Queensland secondary school classrooms.

**Summary**

Taken as a whole, results from Part 2 of the survey showed that professional development on classroom management had been accessed by approximately 50% of the teachers surveyed, and that this professional development had been mainly provided in-house by schools. Less than 50% of survey respondents believed that their pre-service training had adequately prepared them for the realities of classroom management in schools. However, the majority of the teachers surveyed believed that they had the classroom management skills
and knowledge to prevent and respond to most common behavioural issues. Nevertheless, a substantial proportion of respondents reported feeling stressed in relation to student behaviours encountered in their classrooms.

Just over 50% of respondents reported teaching in a school implementing PBL, with slightly more agreeing that they had a good understanding of PBL principles and core features. Teachers reported preventing problem behaviours in the following ways: (a) establishing expectations and routines, and being consistent with boundaries and consequences; and (b) using the strategies contained in the ESCM professional development package. The main approach for responding to problem behaviours was to reprimand students and assign sanctions, including removal from the learning environment. The majority of teachers believed that their current strategies for prevention and responding were effective.
Implementation of EBPs for Classroom Management

The final section of the survey asked respondents to rate their frequency of use of 14 EBPs for classroom management on a 5-point scale using the following labels: never, occasionally, sometimes, fairly often, and always. Table 13 displays the percentage of responses for each rating level across the 14 identified practices.

Table 13

Percentage of Survey Responses for Each Rating Level across 14 Practices

<table>
<thead>
<tr>
<th>EBPs for classroom management</th>
<th>Always %</th>
<th>Fairly often %</th>
<th>Sometimes %</th>
<th>Occasionally %</th>
<th>Never %</th>
</tr>
</thead>
<tbody>
<tr>
<td>organising the classroom management to maximise engagement</td>
<td>40</td>
<td>35</td>
<td>14</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>giving clear instructions for activities</td>
<td>82</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>teaching classroom procedures and routines explicitly</td>
<td>54</td>
<td>34</td>
<td>7</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>establishing, reviewing, and reteaching a small number of positively stated classroom rules</td>
<td>24</td>
<td>41</td>
<td>22</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>actively monitoring the classroom</td>
<td>83</td>
<td>16</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>providing all students with frequent opportunities to respond</td>
<td>36</td>
<td>47</td>
<td>13</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>differentiating instruction to suit the learner</td>
<td>39</td>
<td>42</td>
<td>17</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>using non-verbal acknowledgement to encourage appropriate behaviour</td>
<td>60</td>
<td>32</td>
<td>7</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>providing specific, descriptive feedback on appropriate behaviour</td>
<td>35</td>
<td>49</td>
<td>13</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>using a classroom reward system</td>
<td>17</td>
<td>23</td>
<td>25</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>maintaining at least a 4:1 ratio of positive to corrective feedback</td>
<td>16</td>
<td>32</td>
<td>31</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>providing frequent prompts for appropriate behaviour</td>
<td>34</td>
<td>48</td>
<td>16</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>incorporating teaching opportunity when responding to minor behavioural concerns</td>
<td>31</td>
<td>47</td>
<td>16</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>consistently responding to problem behaviour</td>
<td>42</td>
<td>47</td>
<td>10</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Figure 33 shows the percentage of respondents reporting *always or fairly often* using each EBP, compared with the percentage of comments which directly related to each corresponding EBP in the free-text responses to Questions 20 and 21. For example, for the practice “organising the classroom management to maximise engagement” almost 80% of respondents reported *always or fairly often* doing this. In free-text responses, approximately 20% of examples could be considered to relate to “organising the classroom management to maximise engagement.” Responses for each practice will now be reviewed sequentially.

![Comparison of free text references and always/fairly often responses](image)

*Figure 33. Comparison of *always* and *fairly often* ratings for use of identified practices and referencing of the same practice in the free-text comments.*

**Organising the Classroom Management to Maximise Engagement**

This practice entails displaying a schedule for lessons, setting up the classroom to suit the activity, and ensuring ease of movement, access to equipment, the ability of the teacher to see all students, and the ability of students to see the teacher. The majority of teachers reported employing this practice either *always* (40%) or *fairly often* (35%). This practice was...
considered to fit within the approach of *use of instruction and engagement* assigned to Question 20, “Which classroom management practices do you use most frequently to maximise teaching and learning time?” A comparison of the self-reported frequency ratings for “organising the classroom management to maximise engagement” and the earlier free-text responses revealed some inconsistency. Although many teachers talked about the importance of being organised in their free-text responses, only three responses explicitly mentioned classroom layout. Overall, 20% of free-text responses referenced organisation of the environment, although the majority of these responses were in relation to having an assigned seating plan. There was no mention of displaying a schedule, ability of students to see the teacher and vice versa, access to equipment, or ease of movement around the room, although many teachers talked about the importance of having proximity to students.

**Giving Clear Instructions for Activities**

This practice entails getting attention before giving instructions, and positively and clearly stating instructions. The majority of respondents (82%) reported that they always give clear instructions for activities. This result was compared with the free-text responses assigned to the category *use of instruction and engagement* in Question 20. In free-text responses, some teachers mentioned the importance of gaining attention, for example, by waiting and scanning, or ensuring students were quiet before giving an instruction. A small number of teachers stated the importance of making instructions clear, noting that this is a key component of effective teaching. In total, around 10% of the free-text responses explicitly mentioned the importance of clear instruction giving.
**Teaching Classroom Procedures and Routines Explicitly**

This practice entails the teaching and practising of procedures which become routines over time. In responding to this question, 54% of teachers stated that they *always* teach routines and procedures, 34% said they did so *fairly often*, 7% reported teaching routines *sometimes*, 4% said they did it *occasionally*, and only 1% reported *never* teaching routines and procedures. In the free-text responses to Question 20, the importance of having routines in place was commented upon by 21% of respondents.

**Establishing, Reviewing, and Reteaching a Small Number of Positively Stated Classroom Rules**

This practice entails having rules in place and teaching these rules to students. In the description provided for this practice in the survey it was stated that the rules should be displayed, and the number of rules was quantified to between three and five. Around a quarter (24%) of teachers reported *always* doing this, while 41% said they did it *fairly often*, and 22% reported establishing, reviewing, and reteaching the rules *sometimes*. There were 10% who reported *occasionally* doing so, while 4% of respondents said they *never* establish or refer to positively stated classroom rules. In the free-text responses to Question 20, almost a third of responses (29%) mentioned setting or having classroom rules, although only a small percentage (< 3%) talked about explicitly teaching the rules.

**Actively Monitoring the Classroom**

This practice entails the use of proximity, movement around the classroom, scanning, and interacting. In ratings for this EBP, 83% of teachers reported *always* “actively monitoring the classroom,” with 16% stating they did it *fairly often*, and 1% *sometimes*. No teachers
stated *never* using this practice, or only using it *occasionally.* Examples of use of this practice were provided by approximately 15% of teachers in their free-text responses to Question 20. These teachers talked about “roaming,” monitoring student activity, looking at students, or using proximity to focus attention.

**Providing all Students with Frequent Opportunities to Respond**

This practice entails giving many opportunities for student responses, the tracking of responses to ensure equal participation, and varying the modes and types of responses. In Part 3 of the survey, 36% of teachers said they *always* provide frequent opportunities to respond, 47% said they did so *fairly often,* and 13% said they did so *sometimes.* While around 11% of teachers talked about the importance of engaging students in their free-text responses to Question 20, most referred to keeping students busy, varying activities and pacing lessons appropriately; none used the terminology of “opportunities to respond.”

**Differentiating Instruction to Suit the Learner**

This practice entails modifying tasks, providing choices, considering interests, and scaffolding. Differentiation has been a buzz word in Queensland schools in recent years, included in the Pedagogical Framework policy which states that schools must have in place “differentiated and scaffolded teaching based on identified needs of students” (Queensland Department of Education, 2019a). Thus, most Queensland teachers should be familiar with the terminology and aware of the expectation that they need to differentiate instruction. Responses for this practice showed that 39% of teachers reported *always* using differentiation, 42% reported using it *fairly often,* 17% said they did it *sometimes,* with fewer than 4% reporting occasional or no use. In the free-text responses to Question 20, only 8% explicitly
mentioned differentiation, including “supporting students on a needs basis,” “knowing students” and “differentiated teaching.”

Using Non-Verbal Acknowledgement to Encourage Appropriate Behaviour

This practice entails use of non-verbal approval, such as smiling, giving a thumbs up, and touching the desk. There were 60% of respondents who reported using non-verbal acknowledgement of this kind always, while 32% said they used it fairly often. Less than 10% of the teachers who responded said they sometimes, occasionally, or never used non-verbal acknowledgement. In the free-text responses to Question 20, use of non-verbal cues was mentioned in 4% of comments.

Providing Specific, Descriptive Feedback on Appropriate Behaviour

This practice entails describing positive behaviour demonstrated by students and linking it to the classroom rules. This is another key classroom practice included in PBL implementation, as well as being one of the ESCM (Descriptive encouraging). Again, most teachers reported using this practice always (35%) or fairly often (49%). A minority of teachers reported using this practice only sometimes (13%) or occasionally (3%). Giving “positive comments” and “praising good behaviour” were some of the free-text responses provided for Question 20, which correspond to use of this practice. Responses of this nature were given by 21% of the teachers who completed this question.

Using a Classroom Reward System

This practice entails the provision of tangible rewards or tokens to students for demonstrating appropriate behaviour. This practice was reported as least used by the teachers
responding to the survey. The example made it clear that a system, with agreed criteria and parameters, had to be in place. This example was provided so that a distinction could be made between the practice of giving an occasional reward, and having an organised reward system in place, based on the classroom expectations. Use of a classroom reward system was one of only two practices where less than half of the responses fell into the \textit{always} or \textit{fairly often} categories. A substantial number (16\%) reported \textit{never} “using a classroom reward system,” 18\% said they used one \textit{occasionally}, 25\% \textit{sometimes}, 23\% \textit{fairly often}, and 17\% said they \textit{always} use a classroom reward system. In the free-text responses to Question 20, only 9\% of comments mentioned providing rewards, such as giving points.

\textbf{Maintaining at Least a 4:1 Ratio of Positive to Corrective Feedback}

This practice entails providing at least four positive statements for every corrective statement made to students. The example provided for this practice specifically included ongoing monitoring of the ratio as a component of the practice. This example was included because of the difficulty of determining a ratio of positive to corrective feedback without some method of data collection. Reported frequencies for use of this practice were similar to those for “using a classroom reward system.” Less than 50\% of the respondents selected \textit{always} or \textit{fairly often} for implementation of “maintaining at least a 4:1 ratio of positive to corrective feedback.” Around a third (31\%) reported maintaining and monitoring the ratio \textit{sometimes}, while 13\% said they did so \textit{occasionally} and 8\% said they did not maintain (or perhaps did not regularly monitor) a ratio of four acknowledgements to one correction overall. Only 16\% of teachers stated they \textit{always} maintain and monitor use of a 4:1 ratio, while 32\% said they did so \textit{fairly often}. In the free-text responses to Question 20, only one response
specifically stated the importance of maintaining a ratio of more positives to correctives as a preventative practice.

**Providing Frequent Prompts for Appropriate Behaviour**

This practice entails giving reminders prior to known problem times or activities, and providing non-verbal, visual, and verbal reminders and prompts. In the responses to this question, 34% of teachers reported *always* providing prompts for appropriate behaviour, with 48% saying they did this *fairly often*. Sixteen percent said it was something they did *sometimes*, with less than 3% providing prompts only *occasionally* or *never*. In the free-text comments for Question 20, around 5% of teachers mentioned using visual prompts, non-verbal reminders, or pre-corrections.

**Incorporating a Teaching Opportunity When Responding to Minor Behavioural Concerns**

This practice entails provision of rule reminders, giving a rationale for the behaviour expected, providing modelling, and giving practice opportunities. Around a third of respondents (31%) said they *always* incorporate a teaching opportunity in responses to minor behavioural concerns, while 47% said they did this *fairly often*. The remainder reported using this approach *sometimes* (16%), *occasionally* (2%), and *never* (<1%). By comparison, in the free-text responses to Question 21, “Which classroom management practices do you use most frequently to respond to behaviours that interfere with teaching and learning?” around 20% of comments related to this EBP. However, there were only four responses which referred to “explicit teaching” as something teachers did routinely when responding to problem
behaviour. Most of the free-text comments which were considered to relate to this EBP talked about the importance of providing rule reminders and restating the expectations.

**Consistently Responding to Problem Behaviour**

The final practice included in Part 3 of the survey entails (a) remaining calm, (b) using a continuum of responses from least to most intrusive, (c) use of consequences which aim to correct and teach, and (d) consistently following through using agreed school processes. In the frequency ratings, 42% of teachers reported that they *always* respond consistently and 47% said they did so *fairly often*. The remainder stated that they responded consistently *sometimes*, with less than 2% stating they were *occasionally* or *never* consistent. Consistency was a frequently used word in the free-text responses to Questions 20 and 21, with many teachers commenting on the importance of being consistent with expectations and follow through of consequences. For example, “make your ‘no’ mean no, and your ‘yes’ mean yes” and “consistent, fair consequences followed through.” Overall, 11% of free-text comments made reference to the importance of consistency in response to behaviour.

**Impact of PBL Implementation or Understanding on Reported Use of EBPs**

Separate analyses of the responses to Part 3 of the survey were conducted in order to answer RQ 3: *Do teachers working in schools using the PBL framework or who perceive that they have good understanding of PBL principles report higher levels of implementation of EBPs for classroom management?* First, responses from the two schools completing the paper version of the survey were compared. Next, responses to Part 3 of the survey were compared across the entire survey sample.
Comparison of Two Schools

The percentage of teachers in School 1 (implementing PBL) and School 2 (not implementing PBL) responding *always* or *often* for use of each EBP is shown in Figure 34. The main differences were in “organising the classroom management to maximise engagement” and “using a classroom reward system,” with teachers in the PBL school reporting higher frequency of use of these two practices. Teachers in the non-PBL school reported more frequently “using non-verbal acknowledgement to encourage appropriate behaviour” and slightly more use of “teaching classroom procedures and routines explicitly.”

![Figure 34. Comparison of teachers in PBL and non-PBL school responding they *always* or *often* use the identified practice.](image)

Comparison Across Entire Survey Sample

Responses from the entire survey (i.e., responses from the two schools where a paper version of the survey was administered and responses to the online survey) on the frequency of use for each EBP were then compared for the following groups: (a) teachers working in a PBL school, (b) teachers agreeing that they understood PBL principles and core features, (c)
teachers working in schools not implementing PBL, and (d) teachers disagreeing that they understood PBL principles and core features. Table 14 displays the percentage of teachers in each group reporting that they *always or often* use the identified EBP. Overall, reported frequency of use of EBPs from teachers either in PBL schools, or reporting good understanding of PBL principles, were similar. Likewise, the reported frequencies of implementation of EBPs for those not in PBL schools, or not understanding PBL principles, were similar.

Table 14

<table>
<thead>
<tr>
<th>EBPs for classroom management</th>
<th>PBL school %</th>
<th>PBL understand %</th>
<th>Non-PBL school %</th>
<th>PBL don’t understand %</th>
</tr>
</thead>
<tbody>
<tr>
<td>organising the classroom management to maximise engagement</td>
<td>79</td>
<td>79</td>
<td>72</td>
<td>71</td>
</tr>
<tr>
<td>giving clear instructions for activities</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>teaching classroom procedures and routines explicitly</td>
<td>87</td>
<td>89</td>
<td>91</td>
<td>84</td>
</tr>
<tr>
<td>establishing, reviewing, and reteaching a small number of positively stated classroom rules</td>
<td>68</td>
<td>69</td>
<td>64</td>
<td>54</td>
</tr>
<tr>
<td>actively monitoring the classroom</td>
<td>99</td>
<td>98</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>providing all students with frequent opportunities to respond</td>
<td>85</td>
<td>85</td>
<td>82</td>
<td>75</td>
</tr>
<tr>
<td>differentiating instruction to suit the learner</td>
<td>79</td>
<td>83</td>
<td>84</td>
<td>75</td>
</tr>
<tr>
<td>using non-verbal acknowledgement to encourage appropriate behaviour</td>
<td>91</td>
<td>93</td>
<td>95</td>
<td>91</td>
</tr>
<tr>
<td>providing specific, descriptive feedback on appropriate behaviour</td>
<td>85</td>
<td>87</td>
<td>82</td>
<td>76</td>
</tr>
<tr>
<td>using a classroom reward system</td>
<td>56</td>
<td>51</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>maintaining at least a 4:1 ratio of positive to corrective feedback</td>
<td>55</td>
<td>57</td>
<td>44</td>
<td>29</td>
</tr>
<tr>
<td>providing frequent prompts for appropriate behaviour</td>
<td>84</td>
<td>84</td>
<td>81</td>
<td>75</td>
</tr>
<tr>
<td>incorporating teaching opportunity when responding to minor behavioural concerns consistently</td>
<td>79</td>
<td>82</td>
<td>77</td>
<td>67</td>
</tr>
<tr>
<td>consistently responding to problem behaviour</td>
<td>90</td>
<td>89</td>
<td>89</td>
<td>87</td>
</tr>
</tbody>
</table>
The biggest disparity in responses from the entire survey was for “using a classroom reward system” and “maintaining at least a 4:1 ratio of positive to corrective feedback,” with teachers in non-PBL schools, or not understanding PBL principles, more likely to report never using these practices. These teachers were also slightly more likely to select never for “teaching classroom procedures and routines explicitly” and “establishing, reviewing, and reteaching a small number of positively stated classroom rules.”

Summary of Exploratory Analysis Results

Results from Part 3 of the survey indicated that secondary school teachers perceived they used the majority of the identified EBPs at high rates of frequency. The practices rated as most often used by teachers were “giving clear instructions for activities” and “actively monitoring the classroom.” The practices teachers reported using least were “using a classroom reward system” and “maintaining at least a 4:1 ratio of positive to corrective feedback.” When the teacher ratings for frequency of use of the provided EBPs were compared with the free-text responses to Questions 20 and 21 in Part 2 of the survey, there was some inconsistency between the practices listed by teachers and the ratings for frequency of use of EBPs. Agreement between free-text comments and responses to the frequency of use of EBPs was strongest in relation to having rules in place with clear expectations for behaviour.

Statistical Modelling

Statistical modelling was conducted to investigate variables impacting on the distribution of reported teacher use of EBPs for classroom management. As indicated in Chapter 3, the following variables were included in the model: (a) working in a school
implementing PBL, (b) understanding of PBL principles, (c) attendance at professional development in classroom management, (d) having the knowledge and skills to prevent problem behaviour, (e) understanding of EBPs for classroom management, (f) confidence in managing problem behaviours, and (g) feeling stressed about behaviour issues in current classes.

The first two of these variables were considered in order to answer RQ 3: Do teachers working in schools using the PBL framework, or perceiving that they have a good understanding of PBL principles, report higher levels of implementation of EBPs for classroom management? The remaining variables were identified in the exploratory data analysis and considered in relation to RQ 4: What is the impact on perceived use of EBPs for classroom management of (a) teacher demographics, such as gender, years of teaching experience, and subject areas taught, (b) having access to professional development in classroom management, and (c) confidence and concerns with classroom management?

Two of the EBPs, “giving clear instructions for activities” and “actively monitoring the classroom,” were excluded from the modelling as there was not a large enough response range for modelling to be useful. As indicated previously, a binomial model was used for 10 of the EBPs, since the response scale for these EBPs had been collapsed to two levels (see Table 15), and an ordinal probit model was run for “using a classroom reward system” and “maintaining at least a 4:1 ratio of positives to correctives,” which were the two EBPs with the broadest response ranges, resulting in assignation of a response scale comprising three levels.
Table 15

**EBPs Where a Binomial Model was used in the Regression Analysis**

<table>
<thead>
<tr>
<th>Evidence-based practice provided in survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>organising the classroom management to maximise engagement</td>
</tr>
<tr>
<td>teaching classroom procedures and routines explicitly</td>
</tr>
<tr>
<td>establishing, reviewing, and reteaching a small number of positively stated classroom rules</td>
</tr>
<tr>
<td>providing all students with frequent opportunities to respond</td>
</tr>
<tr>
<td>differentiating instruction to suit the learner</td>
</tr>
<tr>
<td>using non-verbal acknowledgement to encourage appropriate behaviour</td>
</tr>
<tr>
<td>providing specific, descriptive feedback on appropriate behaviour</td>
</tr>
<tr>
<td>providing frequent prompts for appropriate behaviour</td>
</tr>
<tr>
<td>incorporating a teaching opportunity when responding to minor behavioural concerns</td>
</tr>
<tr>
<td>consistently responding to problem behaviour</td>
</tr>
</tbody>
</table>

**Generalised Linear Models**

**Binomial modelling.** The posterior distribution of the model coefficients for the 10 EBPs, where a binomial model was used, initially failed to identify any strong relationships across responses. The model was then rerun in order to create a parsimonious set of parameters to explain the use of each EBP. “Teaching in a PBL school” slightly increased the likelihood of higher reported frequency of “organising the classroom management to maximise engagement” and “consistently responding to problem behaviour.” “Having a good understanding of PBL principles” made it somewhat more likely that teachers would report higher frequency use of “differentiating instruction to suit the learner,” “providing specific, descriptive feedback on appropriate behaviour,” and “incorporating a teaching opportunity when responding to minor behavioural concerns.” There was also a small effect between teachers who had accessed professional development in classroom management and reporting higher frequency use of three of the practices: “organising the classroom management to maximise engagement,” “establishing, reviewing, and reteaching a small number of positively stated classroom rules,” and “providing specific, descriptive feedback on appropriate behaviour.” Reporting “having the knowledge and skills to prevent problem behaviour” interacted positively with “teaching classroom procedures and routines
explicitly,” “establishing, reviewing, and reteaching a small number of positively stated classroom rules,” “providing frequent prompts for appropriate behaviour,” and “incorporating a teaching opportunity when responding to minor behavioural concerns.” Reporting “having the confidence to manage most problem behaviour” interacted positively with “using non-verbal acknowledgement to encourage appropriate behaviour” and “consistently responding to problem behaviour.” Teachers who reported “feeling stressed in relation to behaviour in their classes” were less likely to report frequent use of “organising the classroom management to maximise engagement,” “providing all students with frequent opportunities to respond,” “differentiating instruction to suit the learner,” and “consistently responding to problem behaviour.”

Overall, reporting having “a good understanding of evidence-based practices for classroom management” slightly increased the likelihood of reporting higher frequency of use of five EBPs. These were: “teaching classroom procedures and routines explicitly,” “establishing, reviewing, and reteaching a small number of positively stated classroom rules,” “providing all students with frequent opportunities to respond,” “differentiating instruction to suit the learner,” and “incorporating a teaching opportunity when responding to minor behavioural concerns.” Table 16 shows posterior probability coefficients reflecting these findings. As explained previously, the posterior mean is the mean of the posterior values from the MCMC sample and the 95% credible interval is the range between the upper and lower 2.5% of the sample (see Figure 10). The Bayesian p-value is the percentage of the sample falling above (or below) zero, in the direction of the estimated effect.
### Table 16

**Posterior Summaries of Final Models for Reported Use of EBPs Using Binomial Logistic Model**

<table>
<thead>
<tr>
<th>Intercept and variables for each practice</th>
<th>Posterior mean (95% credible interval)</th>
<th>Bayesian p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>organising the classroom management to maximise engagement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.95 (0.57,1.34)</td>
<td>0.00</td>
</tr>
<tr>
<td>PBL school Yes</td>
<td>0.38 (-0.04,0.80)</td>
<td>0.04</td>
</tr>
<tr>
<td>Professional development Yes</td>
<td>0.29 (-0.11,0.67)</td>
<td>0.08</td>
</tr>
<tr>
<td>Stressed Agree</td>
<td>-0.38 (-0.80,0.04)</td>
<td>0.04</td>
</tr>
<tr>
<td><strong>teaching classroom procedures and routines explicitly</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.24 (-0.10,1.67)</td>
<td>0.37</td>
</tr>
<tr>
<td>PBL school Yes</td>
<td>-0.50 (-1.16,0.12)</td>
<td>0.06</td>
</tr>
<tr>
<td>Knowledge &amp; skills Agree</td>
<td>1.40 (0.16,2.53)</td>
<td>0.01</td>
</tr>
<tr>
<td>Understand EBP Agree</td>
<td>0.93 (-0.17,1.94)</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>establishing, reviewing, and reteaching a small number of positively stated classroom rules</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.84 (-3.31,-0.53)</td>
<td>0.00</td>
</tr>
<tr>
<td>Professional development Yes</td>
<td>0.45 (0.10,0.82)</td>
<td>0.01</td>
</tr>
<tr>
<td>Knowledge &amp; skills Agree</td>
<td>0.70 (-0.45,1.88)</td>
<td>0.12</td>
</tr>
<tr>
<td>Understand EBP Agree</td>
<td>1.65 (0.76,2.64)</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>providing all students with frequent opportunities to respond</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.92 (0.05,1.83)</td>
<td>0.02</td>
</tr>
<tr>
<td>Stressed Agree</td>
<td>-0.73 (-1.20,-0.27)</td>
<td>0.00</td>
</tr>
<tr>
<td>Understand EBP Agree</td>
<td>1.16 (0.25,2.03)</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>differentiating instruction to suit the learner</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>1.03 (0.14,2.00)</td>
<td>0.01</td>
</tr>
<tr>
<td>PBL school Yes</td>
<td>-0.61 (-1.19,-0.04)</td>
<td>0.02</td>
</tr>
<tr>
<td>Understand PBL Agree</td>
<td>0.52 (-0.02,1.08)</td>
<td>0.03</td>
</tr>
<tr>
<td>Stressed Agree</td>
<td>-0.62 (-1.07,-0.16)</td>
<td>0.01</td>
</tr>
<tr>
<td>Understand EBP Agree</td>
<td>0.89 (-0.07,1.77)</td>
<td>0.03</td>
</tr>
<tr>
<td><strong>using non-verbal acknowledgement to encourage appropriate behaviour</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>1.36 (0.27,2.53)</td>
<td>0.01</td>
</tr>
<tr>
<td>PBL school Yes</td>
<td>-0.53 (-1.31,0.23)</td>
<td>0.08</td>
</tr>
<tr>
<td>Confident to manage Agree</td>
<td>1.71 (0.60,2.71)</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>providing specific, descriptive feedback on appropriate behaviour</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.30 (-1.42,0.80)</td>
<td>0.30</td>
</tr>
<tr>
<td>Understand PBL Agree</td>
<td>0.45 (-0.01,0.91)</td>
<td>0.03</td>
</tr>
<tr>
<td>Professional development Yes</td>
<td>0.41 (-0.05,0.87)</td>
<td>0.04</td>
</tr>
<tr>
<td>Knowledge &amp; skills Agree</td>
<td>1.53 (0.44,2.63)</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>providing frequent prompts for appropriate behaviour</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.31 (-1.44,0.80)</td>
<td>0.29</td>
</tr>
<tr>
<td>Knowledge &amp; skills Agree</td>
<td>1.93 (0.78,3.08)</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>incorporating a teaching opportunity when responding to minor behavioural concerns</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.82 (-2.12,0.41)</td>
<td>0.10</td>
</tr>
<tr>
<td>Understand PBL Agree</td>
<td>0.41 (-0.01,0.83)</td>
<td>0.03</td>
</tr>
<tr>
<td>Knowledge &amp; skills Agree</td>
<td>1.19 (0.04,2.32)</td>
<td>0.02</td>
</tr>
<tr>
<td>Understand EBP Agree</td>
<td>0.82 (-0.09,1.70)</td>
<td>0.04</td>
</tr>
<tr>
<td><strong>consistently responding to problem behaviour</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.74 (-0.37,1.87)</td>
<td>0.10</td>
</tr>
<tr>
<td>PBL school Yes</td>
<td>0.33 (-0.30,0.94)</td>
<td>0.15</td>
</tr>
<tr>
<td>Professional development Yes</td>
<td>-0.33 (-0.92,-0.25)</td>
<td>0.13</td>
</tr>
<tr>
<td>Confident to manage Agree</td>
<td>1.86 (0.87,2.84)</td>
<td>0.00</td>
</tr>
<tr>
<td>Stressed Agree</td>
<td>-0.45 (-1.04,0.12)</td>
<td>0.07</td>
</tr>
</tbody>
</table>
For each practice in Table 15, the intercept represents the absence of each condition. For example, for “organising the classroom management to maximise engagement” the intercept is “not teaching in a PBL school,” “not having had professional development in classroom management,” and “not feeling stressed about student behaviour.” Then, for a similar teacher who teaches in a PBL school, we add the coefficient 0.38; hence, they are slightly more likely to report frequent use of “organising the classroom environment to maximise engagement.”

Table 17 shows how different combinations of conditions for “teaching in a PBL school,” “having had professional development in classroom management,” and “feeling stressed about student behaviour” increases (+) or decreases (-) use of “organising the classroom management to maximise engagement.”

Table 17

<table>
<thead>
<tr>
<th>Teaching in PBL school</th>
<th>PD in classroom management</th>
<th>Stressed about behaviour</th>
<th>Linear predictor (posterior mean)</th>
<th>Use of EBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>0.95</td>
<td>=</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>0.95+0.38</td>
<td>+</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>0.95+0.38+0.29</td>
<td>+</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>0.95+0.38+0.29-0.38</td>
<td>+</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>0.95+0.38-0.38</td>
<td>=</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>0.95+0.29</td>
<td>+</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>0.95+0.29-0.38</td>
<td>-</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>0.95-0.38</td>
<td>-</td>
</tr>
</tbody>
</table>

**Ordinal probit modelling.** A multinomial ordinal probit model was run on two of the practices: “using a classroom reward system” and “maintaining at least a 4:1 ratio of positive to corrective feedback.” The model yielded posterior distributions of coefficients indicating an association between “teaching in a school implementing PBL” or “having good understanding of PBL principles and core features,” and higher rates of use of “using a classroom reward system” and “maintaining at least a 4:1 ratio of positive to corrective feedback.”
feedback.” Reporting “good understanding of EBPs for classroom management” also appeared to increase the probability of increased reported use of these two EBPs. Posterior probability coefficients are presented in Tables 18 and 19.

Table 18

**Posterior Summaries for Using a Classroom Reward System**

<table>
<thead>
<tr>
<th>Intercept and variables</th>
<th>Posterior mean (95% credible interval)</th>
<th>Bayesian p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.07 (-0.40, 0.55)</td>
<td>0.39</td>
</tr>
<tr>
<td>PBL school Yes</td>
<td>0.46 (0.20, 0.70)</td>
<td>0.00</td>
</tr>
<tr>
<td>Understand PBL Agree</td>
<td>0.25 (-0.01, 0.49)</td>
<td>0.03</td>
</tr>
<tr>
<td>Professional development</td>
<td>0.50 (0.11, 0.49)</td>
<td>0.00</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand EBP Agree</td>
<td>0.42 (-0.03, 0.87)</td>
<td>0.03</td>
</tr>
<tr>
<td>Stressed agree</td>
<td>0.19 (-0.01, 0.40)</td>
<td>0.03</td>
</tr>
</tbody>
</table>

*Note.* Intercept = not in a PBL school, do not understand PBL, no PD, do not understand EBP, and not stressed.

Table 19

**Posterior Summaries for Maintaining a 4:1 Ratio of Positives to Correctives**

<table>
<thead>
<tr>
<th>Intercept and variables</th>
<th>Posterior mean (95% credible interval)</th>
<th>Bayesian p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.38 (-0.30, 1.05)</td>
<td>0.13</td>
</tr>
<tr>
<td>Understand PBL Agree</td>
<td>0.48 (0.29, 0.68)</td>
<td>0.00</td>
</tr>
<tr>
<td>Knowledge &amp; skills Agree</td>
<td>0.51 (-0.06, 1.15)</td>
<td>0.04</td>
</tr>
<tr>
<td>Understand EBP Agree</td>
<td>0.51 (0.05, 0.96)</td>
<td>0.01</td>
</tr>
<tr>
<td>Stressed Agree</td>
<td>-0.27 (-0.50, -0.05)</td>
<td>0.01</td>
</tr>
</tbody>
</table>

*Note.* Intercept = do not understand PBL, do not have the knowledge and skills to prevent, do not understand EBP, and not stressed.

Figure 35 displays a comparison of the probabilities of “using a classroom reward system” and “maintaining at least a 4:1 ratio of positive to corrective feedback,” according to whether teachers were “teaching in a PBL school” and/or had a “good understanding of PBL principles” and a “good understanding of evidence-based practices for classroom management.” The large dot represents the posterior mean and the broken line represents the 95% credible interval, for all of the responses from each group (“teaching in a PBL school,” having a “good understanding of PBL principles,” and having a “good understanding of EBPs for classroom management,” or the reverse). Therefore, a shorter broken line (credible
interval) when the number of responses is large (as shown by the numbering on the horizontal axis), indicates the greater likelihood of the corresponding rating (often, occasionally, or never) being selected.

Figure 35. Probability plots for use of rewards and 4:1 ratio, showing the 95% credible interval, with more teachers understanding PBL and EBP and/or in PBL schools likely to select occasionally as their response.
“Using a classroom reward system,” “teaching in a PBL school,” having “a good understanding of PBL principles,” and having a “good understanding of EBPs for classroom management” (as opposed to “not teaching in a PBL school,” “not understanding PBL principles,” or “not understanding EBPs for classroom management”) increased the likelihood of occasionally being the response chosen. “Maintaining at least a 4:1 ratio of positive to corrective feedback,” having a “good understanding PBL principles,” and having a “good understanding of EBPs for classroom management” made it more likely that the response chosen would be occasionally and less likely the response would be never. Only a small number of responses were in the often category from teachers “not teaching in PBL schools,” “not understanding PBL,” or “not understanding EBPs.”

**Summary of Results from Modelling**

Modelling was used to investigate the interactions of a range of variables on the distribution of reported teacher use of EBPs for classroom management to determine whether associations existed between certain variables and the reported use of 12 identified EBPs for classroom management. No strong effects were found for the majority of the EBPs, although there were slight effects which varied across variables for several of the practices. Notably, there was a relationship between reporting a “good understanding of EBPs for classroom management” and selecting higher frequency ratings for seven of the identified EBPs. An association between “teaching in a PBL school” or having a “good understanding of PBL principles” was found for “using a classroom reward system” and “maintaining at least a 4:1 ratio of positive to corrective feedback.”
Chapter Summary

This chapter has presented the results from Phase 1 of the study. Participant demographics, professional development experiences, and confidence with classroom management have been described. Results of self-reported levels of use of 14 EBPs for classroom management have been provided and compared with the classroom management practices named by teachers in free-text responses.

Survey responses from over 500 secondary school teachers indicated that participants perceived they were using many EBPs for classroom management at high frequency rates. Free-text responses suggested that the main classroom management practices used by the participating secondary school teachers were well established and frequently recommended practices, such as having clear expectations and consistent consequences. In addition, many teachers were familiar with the ESCM, a classroom management training package developed by the Queensland Department of Education, which includes strategies for establishing expectations, providing acknowledgement, and responding to problem behaviour. The response practices used most frequently by the participating teachers could be considered either as low-key responses or as sanctions. Low-key responses include practices such as using proximity or non-verbal prompts, providing a brief redirection, or addressing the behaviour in private. The most frequently used sanctions included making the student move seats, giving warnings or detentions, and sending students out of the room. Regression analysis results have been described, showing a relationship between reported rates of use of rewards and positive acknowledgement and teacher familiarity with the PBL framework. The next chapter presents the results from the thematic analysis of teacher interview data.
CHAPTER 5: INTERVIEW RESULTS

Introduction

This chapter presents the results from phone interviews conducted with 26 Queensland secondary school teachers. The chapter begins by presenting the demographics for the phone interview participants. The main themes and sub-themes identified in the thematic analysis are then presented. The chapter concludes with a summary of the interview results.

Participant Demographics

From an initial pool of 95 teachers agreeing to be contacted for a phone interview, 32 teachers were selected for initial contact, with a goal of completing 25 interviews. A small number of respondents declined to be interviewed when contacted, and a proportion could not be contacted on the supplied phone number, so a further 12 potential interviewees were selected from the pool to enable the target number of interviews to be conducted. Demographics for the resulting 26 phone interview participants were summarised, including age group, teaching experience, school location and size, and subjects and year levels taught. Other information, such as attendance at professional development or teaching in a school implementing PBL remained unknown due to the separation of survey and interview data. Each participant was then assigned a pseudonym to ensure anonymity in the reporting of the results.

There were five teachers in the 20–29 age group, three were aged 30–39, eight were 40–49, nine were 50–59 and one was over 60. Three had been teaching less than 2 years, six had between 2–6 years of experience, one had been teaching 6–10 years, twelve had between
11 and 20 years of experience and four had been teaching for over 20 years. One teacher was in a small secondary school with fewer than 600 students, 9 taught in medium-sized schools of up to a thousand students, and 14 teachers were working in schools of over a thousand students, with 2 interviewees not stating their school size. Most teachers interviewed were teaching in metropolitan areas (17), with 6 in regional centres, 2 in remote locations and 1 in a rurally-located school. A range of subjects were being taught, including Humanities (13), Vocational Education (5), Maths/Science (4), Special Education (4), HPE (2) and the Arts (2). Some teachers were teaching a combination of these subject areas. The majority of the teachers (15) in the interview group were teaching both junior and senior classes, with 8 teaching senior classes only and 2 teaching junior classes only. One teacher did not provide an answer for year levels taught.

Participants involved in the interviews were reflective of the wider survey sample in that the majority were females teaching in schools in a metropolitan area, and were more likely to be teaching senior classes in humanities, vocational subjects, or maths and science. There were slightly fewer interviewees in the under-40 age group, with the majority aged between 40 to 59, which was similar to the proportion of participants in each age group in the larger survey sample. The majority of interviewees had more than 10 years of teaching experience, although slightly more inexperienced teachers were included in the interview group, in comparison to the entire sample. It is likely that the teachers in the interview group were confident in their abilities as classroom managers since they self-nominated to participate.
Interview Results

A thematic analysis of phone interview data was conducted following the 6-phase process recommended by Braun and Clarke (2006), as described in Chapter 3. Figure 36 provides an overview of the phases.

| Phase 1: Data familiarisation | Phase 2: Initial code generation | Phase 3: Theme search | Phase 4: Theme review | Phase 5: Theme definition | Phase 6: Reporting |

*Figure 36. Thematic analysis process.*

A thematic map (Figure 37) was then developed, which identified and named sub-themes in order to organise key ideas cohesively. In developing the thematic map, an overarching theme containing general information about teacher confidence and personal approach to classroom management became apparent. This overarching theme was entitled *Classroom management beliefs*, and was used to set the context for the detailed analysis of the three main themes. The first of these themes was named *Practices* and contained all coded comments with a focus on the classroom management strategies discussed by the interview participants. The second main theme was named *Research* and contained comments which discussed teacher perceptions of research and evidence-based practice. The final theme was named *Challenges* and contained comments which identified problems or concerns in relation to classroom management.
Figure 37. Thematic map of interview responses showing main themes and sub-themes.

Subsequent to the identification of the main themes, a number of sub-themes became apparent. The following four sub-themes were derived from the main theme of practices: (1) organisation and routines, (2) expectations and boundaries, (3) pedagogy, and (4) correction. The main theme of research was divided into two sub-themes, research knowledge and understanding and value to teachers of classroom management research. Finally, the main theme of challenges was split into three sub-themes describing challenges associated with training and support, challenges with school systems, and day-to-day concerns. These three sub-themes were in turn split into minor themes. The sub-theme of training and support was separated out to focus specifically on initial preparation, support for new teachers, and ongoing support for teachers. School systems was broken down into challenges relating to policy and procedure and challenges associated with resourcing. Finally, day-to-day
concerns was split into concerns in relation to student behaviour and concerns with curriculum.

**Classroom Management Beliefs**

The overarching theme of classroom management beliefs served to convey general viewpoints on classroom management expressed by the interviewed teachers. Classroom management was not considered a major concern for around 50% of the teachers interviewed. The sense of confidence and control was generally articulated early in the interview, although most interviewees went on to discuss several challenges later in the interview when provided with the opportunity. Some teachers believed that their classes were well behaved because they were teaching mainly senior or academic classes. However, many also pointed out that this could change year to year and school to school, and that classroom management strategies are always needed. Similarly, 50% of the interviewees stated that classroom management is never perfect, with good days and bad days, and it is something that has to be worked at constantly. Many also reflected on the importance of developing their own style and approach to classroom management. For example, Alex, a beginning teacher, talked about his negative experience of following advice from a head of department to set up a class in a particular way at the start of his first year teaching.

And that probably set me back maybe about six months with that class, just getting them back on side, and it also wasn’t my sort of, it didn’t really fit in with my persona either, and I think kids are incredibly perceptive and if you’re doing something that doesn’t fit with who you are they know and they react to it. So now, I mean that was a really good lesson for me, and throughout the year I worked on that.

Angela, another teacher with less than 5 years’ experience, echoed the belief in the importance of developing your own style.
But the biggest lesson that I learned is that you have to be yourself. You can’t copy someone else’s behaviour management style because you are not that person. And in my prac I remember kind of trying on a few different styles. I was watching a number of different teachers and so I tried rigid authoritarianism and that did not work for me at all.

Some of the teachers interviewed questioned whether classroom management could be taught, suggesting that it mostly comes down to individual personality and beliefs. Jane, a teacher with more than 20 years of experience, subscribed to this view.

I think it’s just a personality thing. I think I’m just fairly outgoing. I like jokes, I like, I like making people laugh, and if I can do it in my classroom as well then that’s all very good.

Jacinta, another experienced teacher, held a similar view.

I pride myself on being a lifelong learner, so I try to stay abreast of what is happening in the world of research and apply those in my classrooms. And I ultimately, the longer I’m in this game, think that it goes back to my beliefs and value system, and that’s hard to teach others.

Almost every teacher interviewed talked about classroom management being underpinned by mutual respect and building positive relationships with students. Many gave examples of getting to know student names quickly and greeting students as ways that they tried to build rapport with students. Teachers talked about treating students as “individuals” and as “people.” A common message was that if teachers treated students with respect then classroom management became much easier. Many emphasised the importance of understanding students’ backgrounds and needs, and involving parents as partners.

I try and build those personal relationships and I usually find that once you’ve established those personal relationships the discipline isn’t as difficult because that level of respect is there. So I work very much on, oh, I have a hard line about what I want, and they know what it is to cross it. But if you’re consistent, and you do it without holding judgement, and you do it and explain why you’re doing it, the kids grow to respect that and that makes it easier for you in the long run. (Jemma)
Interview responses suggested that many secondary school teachers were aware of the benefits of treating adolescent learners with respect, and had learned that taking the time to connect with students pays off in the classroom. This view was articulated well by Angela:

I’m very big on the students seeing me as a human being because I think that if they see me as a person they’re less likely to dehumanise me and see me as just a teacher. And if I’m just a teacher then they can be rude. And … I do that by developing relationships with my students.

As previously stated, most of the teachers interviewed felt confident with classroom management and believed that this confidence had mainly been gained through experience on the job. A number also mentioned experience gained in other jobs, other schools, or through general life experience. Just under 50% of the teachers interviewed expressed the belief that effective classroom management was a skill set that developed over time, through experience and trial and error. Even early career teachers subscribed to this view, as this quote from Ruth, a beginning teacher, illustrates.

Time is everything. You know, just experience. That seems to be the biggest factor as well, for all teachers, and everyone seems to have that same opinion that it’s all about just time and experience.

Many also talked about the support they had received from colleagues as being critical to their development as effective classroom managers, with 31% also talking about the power of observing other teachers, mainly through informal arrangements. The opportunity to participate in a formal observation and feedback process was seen as very helpful by around 23% of the teachers, while 27% said that having a mentor had greatly assisted their development. Around a third also talked about the importance of having support from administration, although only five explicitly talked about the importance of leadership. Very few of the teachers interviewed thought that university preparation had been helpful, although
a small number thought that access to professional development had contributed positively to their growth as effective classroom managers.

**Practices**

Teachers described the current classroom management strategies that they found most effective on a day-to-day basis. Responses ranged from brief statements naming a strategy, through to more reflective responses, providing a rationale and examples. The practices discussed by teachers were grouped into four sub-themes, as previously mentioned.

**Organisation and Routines**

Just over 50% of responses in relation to preferred classroom management practices were assigned to the sub-theme *organisation and routines*, which covered descriptions of practices to establish routines and increase structure. Many of the teachers interviewed said that the establishment of routines formed the basis of their approach to classroom management, and over 50% said that their school expected all teachers to use common routines, or to use the ESCM to establish expectations and boundaries with their classes. A commonly stated belief was that having routines in place prevented most problem behaviours and set the scene for an orderly classroom environment. “Day-to-day classroom management strategies is, have to have structure and it has to be consistent structure, and that is the bulk of everything I do” (Lesley). Several of the interviewees said that they used more routines and had more structure in place for junior classes. A related idea that was also frequently stated was the importance of being well organised and having structured activities and lessons in place. Again, this was seen to reduce the likelihood of problem behaviour.
Expectations and Boundaries

Responses assigned to expectations and boundaries made up just under half of the practices cited by teachers. Many of these responses talked about the importance of consistency, especially in setting expectations and following through with consequences. For example, Tasha, an experienced teacher, described her approach by saying, “I’ve learned very early on that a consistent approach works best, that you follow through. And that students have clear boundaries.” Many others made the point that students needed to see that you would do what you said you would, as illustrated in this quote from another experienced teacher, Mary.

But I’m very consistent with the rules and expectations in my classrooms and I make sure that I follow through on consequences and make sure that I don’t give consequences that I know I won’t be able to follow through with.

Teachers also commented on the necessity of establishing expectations early on and reminding students of these on a regular basis. There were only two respondents who outlined the importance of explicitly teaching expectations; most responses concentrated on simply setting the expectations. Several interviewees also described the way they provided acknowledgement when students followed the expectations, in most cases through verbal praise, although a small number of teachers mentioned providing tangible rewards.

Pedagogy

The sub-theme pedagogy was used to encompass examples of practices which placed emphasis on effective instruction as the basis for classroom management. There was some overlap with the previously described comments about well-structured lessons, in that the underlying premise recognised the reciprocal relationship between instruction and behaviour. However, the comments assigned to pedagogy focused more on differentiating teaching and
ensuring that all learners were catered for, thus preventing many behaviour problems associated with inability to do the assigned work. Around 23% of the teachers interviewed highlighted awareness of differentiation as a classroom management practice. This quote from Rachel, a teacher with many years’ experience, illustrates the belief that issues with behaviour are often the result of inappropriate curriculum.

And the problem we’ve got, too, is it’s not so much, the kids are demonstrating behaviour, but there’s a reason for the behaviour. Low literacy. So, you know, we’re now establishing a lot of these kids on individual curriculum plans, and reducing the actual level, you know. If they’re a Year 7, some of these kids can’t even read and write. So we’re bringing it down to primary school level to support them. And by doing that, we’re actually seeing a change in the behaviour.

**Correction**

The remaining comments were assigned to the sub-theme of *correction*. Almost three quarters of the teachers interviewed provided examples of practices in relation to correction of student behaviour as part of their responses. Around 50% of these examples focused on the importance of dealing with problem behaviour individually. Teachers talked about taking students aside and questioning them to get them to reflect on their behaviour, with several commenting on the importance of talking to students away from the rest of the class to show respect and remove the audience. Several teachers also talked about dealing with problem behaviour in a low-key way, such as by using proximity or non-verbal cues, while some also talked about the use of humour as an effective way to de-escalate potential problems. Finally, around 20% of examples provided focused on the provision of consequences, such as moving seats, making up time, or sending students out of the room.
**Research**

Teachers were asked to provide an explanation and examples of classroom management practices deriving from research, and were also asked if they believed that classroom management research was of use to practising teachers.

**Knowledge and Understanding**

To explore teacher knowledge of EBPs for classroom management, interviewees were asked to explain their understanding and provide examples of what they considered to be evidence-based practices. This proved to be a tricky question for the majority of respondents, with many saying they did not know or were not sure about what would constitute EBPs for classroom management. This response from veteran teacher, Gayle, is fairly typical of responses in general.

Evidence-based classroom management. I don’t know. I’m guessing, is it classroom management that’s, that’s based on, I guess, research, data? Um, you know, kind of people trying it and actually seeing what works and what doesn’t.

When prompted to provide a definition, around 42% of responses centred on the collection of data to assess whether a strategy was effective, and a further 35% of responses talked about EBPs being based on research that had been carried out in classrooms. Seven of the teachers named the ESCM, or the profiling associated with this professional development, as being evidence based, another seven cited the work of John Hattie or Robert Marzano, while one teacher thought that PBL “sort of is evidence based, I guess.”
Value to Teachers

Teachers’ views on the relevance of research on classroom management to their classrooms were ambivalent. Most believed they could learn from research and thought that it was important to know what works, as shown by this quote from Alex.

I think research in a lot of areas in education is incredibly important, and classroom management is something that everybody has to deal with and has to deal with in different ways, and some things work for some people and not for others, and it’s really a matter of being able to interpret that research and apply it in a way that works for your situation, and I think the more research that’s done around classroom management the easier it’s going to be for teachers to be able to interpret that and adapt it into their practice.

However, many stressed the caveat that it was important for research to be contextualised and that not all research was valuable for their school and their classroom. Some went further, articulating a belief that research could be used in the wrong way to force teachers to do things in a certain way, or to support a particular viewpoint. Some also questioned the validity of some research findings, critically questioning research methodologies and results, or disagreeing with research findings based on their own experiences as a teacher. This quote from Ellie, a teacher with many years’ teaching experience, about the research on class size is a good example of such misgivings.

I’m pretty critical of evidence based because I remember them saying that it was evidence based, that it was as easy to teach 20 as it was to teach 28, and for me that’s not true, and especially on a practical class in an art class, and using equipment and stuff. So evidence based is research, but I always think it’s suss, like ask me and I’ll always have a different opinion.
Challenges

The final theme was derived from teacher responses throughout the entire interview, although the final interview question specifically prompted teachers to identify classroom management challenges, either in relation to themselves personally or to the school as a whole. Comments regarding the challenges facing teachers with classroom management were broken into three sub-themes: training and support, school systems, and day-to-day challenges.

Training and Support

Responses in this sub-theme were further categorised to encompass (a) teacher preparation, (b) new teachers, and (c) ongoing support.

Preparation. Over a third of the teachers interviewed raised problems with the inadequacy of pre-service teacher preparation, either in relation to their own pre-service experience or to their observations of other beginning teachers. A common complaint was the shortness of courses and lack of time spent in classrooms, dealing with a range of classroom behaviours, as shown in this quote from experienced teacher, Sally.

I think the universities and that with the teachers coming out, there needs to be a bit of a change because we get these lovely teachers coming in and they are so shocked, and we’re not a bad school; we’re dealing just with typical teenagers and they reflect society. But if there was some sort of, I don’t know, year or training that they have where they’re in school a lot and dealing with these sorts of things before they come out fully, because I find when I get teachers in to train nowadays there’s so much guidelines, like in the first week they’re allowed to do this, second week they’re allowed to do that, and I’m not allowed to leave them at all, so they never deal with anything particularly by themselves.

Another criticism was the lack of behaviour management content in pre-service teaching courses, although the two teachers who did complete units in behaviour spoke very
highly of their usefulness. Some experienced teachers felt that pre-service training did not adequately prepare beginning teachers for the complexities of teaching in real secondary schools. Some teachers raised concerns with the recruitment of teachers and wondered if universities were attracting the right applicants. Overall, there was a feeling that more could be done to better prepare new teachers for the reality of teaching in schools.

I don’t believe universities are supporting pre-service teachers enough with it. I believe that they need to have more exposure to the type of behaviours. Because, as I said, a lot of the behaviours, it’s not just bad behaviour, it’s brought on because they could have a disability. It could be a learning difficulty. It could be a cultural issue. It could be built on depression, anxiety. Like, there are so many components now affecting a child’s behaviour. And these things just aren’t taught enough at university. (Rachel)

But I do think that if teachers are coming to work in schools in low socio-economic areas or areas known for poor student behaviour, that there should be more, in their pre-service training, to equip them for it. It’s, they’ll often come and say, well I’ve done three subjects in this and three subjects in that, and then they come and they see what it actually is in reality and it’s very, very different. (Jemma)

**New teachers.** Over 50% of the interviewees were also concerned about lack of support for beginning teachers. All of the newer teachers talked about their own experiences as beginning teachers, and this was a negative experience for the majority of this group. Many talked about a “sink or swim” culture in schools, where only the strongest survive. One or two saw this as a positive experience which toughened them up and forced them to develop classroom management skills quickly, as described by novice teacher, Candy.

My first year of being in a very tough school, was a baptism of fire into the profession. And it was pretty much all behaviour management, because it was a victory if I could get one kid to pick up a pen … So having that harrowing experience was really good, because it was the crucible that you know, hardened me.
However, for the majority of the teachers who spoke about their early experiences in schools, it was a traumatic experience and there were several stories of colleagues who did not make it. The absence or inadequacy of induction processes, including mentoring, was highlighted by some respondents. Even when mentoring was offered, the selection of mentors was not always helpful, and although several teachers talked about positive mentoring experiences, the majority of these were informal or serendipitous arrangements. For every positive experience recounted, there was a correspondingly negative one, like the following example from Lucy, who had been teaching for less than 5 years.

When I first started ... I thought that there’d be lots more mentoring and support and I was really wrong. That was probably the biggest shock to me. I expected children to misbehave, I expected to have to manage their behaviour but I didn’t expect to pretty well be thrown in. I used to hear these statistics about, ‘oh the teachers burn out cause of the workload and the behaviours’ and I thought that’s not going to happen to me and, you know, within three and a half years I quit and had six months off.

**Ongoing support.** Teacher perceptions about access to professional development on classroom management were predominantly negative. Around 50% of interviewees lamented the lack of professional development, or the poor quality of any that was delivered. Of the few who spoke positively of the professional development accessed, the majority referred to the ESCM, with one or two stating that they had accessed the observation and feedback process, which sometimes complements this training, and found it a useful experience.

**School Systems**

The second sub-theme identified under *challenges* was related to *school systems*. Issues raised by teachers in relation to school system challenges related either to problems with school policies and procedures or to resourcing issues.
Policy and procedure. Many teachers were unhappy with what they perceived as a lack of support from school administration for teacher classroom management. Some talked about wanting more advice or opportunities to discuss classroom management issues, but most were concerned with inadequate follow through with disciplinary consequences. A common thread running through many interviews was that teachers were limited in their ability to discipline students for classroom infractions, and that they needed support from administration when they had used up all their options.

So you can go through all the processes they expect you to – recording, ringing up people, negotiating with the individual student and then it gets to where it’s to the point where it needs ... something higher needs to be done and it doesn’t happen and it comes all the way back down to you. That’s where I lose confidence. (Craig)

Several teachers complained that students with ongoing problem behaviours appear to get away with it, and that this sends a bad message to other students and encourages more problem behaviours. Some teachers felt frustrated and stressed by what they perceived as an inadequacy on the part of administrators. Conversely, the teachers who perceived that there were good support structures in place at their school talked about their ability to talk openly to administrators and their satisfaction with the support that was offered, as shown in this quote from Lucy.

Oh I love this school I’m at at the moment, the principal is open, honest, straightforward. He doesn’t sugar coat, he will admit if there’s a problem and address it or attempt to address it, yes, it makes a hell of a difference. I’ll be able to go up and speak to the principal or deputy to get some advice without it being looked upon as, oh God, you know, how painful whatever. That helps enormously just knowing that someone’s there.

Around 50% of the teachers interviewed raised concerns about school behaviour management processes. Many of these concerns related to a perceived lack of consistency or consistent schoolwide approach. Several teachers believed the current system for managing
behaviour in their school was ineffective or detrimental to staff well-being. Common complaints were the number of steps involved, lack of clarity, and the failure of all staff to follow the process. The amount of time needed to follow all required processes was mentioned by many interviewees, as shown by the following quotes.

So the student may do what is really a 30-second bit of silliness that can blow out to an hour or so of teacher lost down-time and, by the time the process runs through, the student has forgotten what they actually did. (Greg)

I think that the requirement to document so much and to provide the data that’s necessary to support the school’s disciplinary action, such as suspensions or after-school detentions or exclusions, makes it very, very tedious for teachers. I think a lot of teachers just give up because of the requirement to document. (Veronica)

Just under a quarter of interviewees voiced concerns about the prescriptive nature or inflexibility of their school processes. While there was widespread agreement on the importance of a consistent approach, many teachers baulked at being told to do things in a prescribed way, especially when it was time consuming or at odds with personal philosophy. Greg, an experienced teacher, put it like this.

I found that schools that say ‘This is the way you will do it’ and lock the teachers into a prescriptive routine have the most behaviour management issues. Even though the methods they are using are quite good, they’re being used at the wrong time.

Ellie and Lesley described the tension between having a consistent approach and allowing teachers some flexibility. For Ellie, her creativity as a teacher was compromised by the school requirement to do things in a certain way, while Lesley was ambivalent about her principal’s strict enforcement of behaviour management procedures.

Because, yes, we do all need to be on the same page and have the same values and the same rules. But, I don’t – and most years you can be that grey edge on that, but yeah, a few years ago we couldn’t. We had to prove that we were, our learning goals were on the board every day, for every subject. And
for me, that was not how I teach, and it destroyed the edge of the creativity in my work. (Ellie)

Yes, it is a little bit stifling as far as creativity goes, but it is good in that the expectation is there for all 80-odd staff in my school, ‘If you are a staff member of my school, you must follow these procedures’; there is no grey. (Lesley)

Teachers were asked to explain how their school expected them to manage student behaviour in their classroom. Although a few teachers described a positive school approach, with a focus on engagement and student support, this comprised fewer than 20% of responses. Just under 50% explained the school approach as leaving classroom management up to individual teachers, or as expecting teachers to use the ESCM. Three shared that their school was using the PBL framework. Over a third of interviewees described the management of problem behaviour, with a focus on referral processes and a hierarchy of consequences, typified by this description from Veronica.

There is a quite strict hierarchy of levels of severity, I guess, of behaviours. So, for minor infringements of the rules, the classroom teacher is responsible and is responsible for putting in place either in-class consequences such as a seating plan to remove students from distracting and disruptive influences within the room. Minor things are dealt with by the classroom teacher, and if a student persists with those minor issues then there’s the possibility of, you know, as I said, in-class detention, sorry, an in-lesson detention or isolation from friends. That can escalate to a detention during a break, and if a student then persists after three of those consequences, parents are to be contacted. Heads of department will become involved. If a student persists after intervention by the head of department more than twice, then that can result in suspension or referral to a deputy principal who can then again involve parents, and the student can be suspended.

**Resourcing.** The other minor theme under *school systems* was tagged *resourcing* and encompassed concerns about classroom management in relation to staffing and workload. A common refrain was the lack of time to do anything well, from lesson planning to engaging
in professional reflection. The inability to offer collegial support, due to the demands of your own workload, was troubling for Lucy.

You can’t really help your colleagues except for a bit of buddying. They’re pretty well on their own, you know. I watched a chap completely disintegrate mental health wise and there was absolutely nothing I could do because I had my own classes.

Mary described teachers giving up their own preparation time in order to support colleagues, in the absence of any other support.

So a lot of the time you find teachers supporting teachers. Those are the times you find giving up your own spares to go and help a teacher in a classroom that’s really struggling with behaviour and having a meltdown.

Several teachers were concerned that high staff turnover or difficulty attracting and retaining suitable teachers made it difficult to achieve consistency with classroom management across the school. This appeared to be a particular issue in rural and remote areas. For example, one teacher spoke about the difficulty of setting up an effective mentoring system for new teachers. Another experienced teacher talked about the high staff turnover associated with schools in low socio-economic areas, and the need for more specialised staff to assist with behaviour and learning support, given the high needs in such schools.

I think staffing stability would be a really important thing. But I think extra resources for schools in our situation, extra staffing to share the load. It’s very, very stressful and can be quite overwhelming … it’s such an overwhelming number of students that need support or need intervention that you can’t, you’re spreading yourself too thin. So if there was more human resources, more funding, more behaviour support programs, all of those sorts of things, I think it would take the stress off and better be able to manage the larger range of students’ needs. (Jemma)

**Day-to-Day Concerns**

Everyday concerns with classroom management and student behaviour were included under this theme. Relevant comments were assigned to either *behaviour* or *curriculum* as a
sub-theme, to distinguish between comments predominantly concerned with the manifestation of problem behaviours, and comments focused on issues with the curriculum as precursors to problem behaviour. Many of the comments contained in these sub-themes arose incidentally as teachers recounted stories and provided examples in response to interview prompts.

**Behaviour.** It became clear that a small number of the teachers interviewed believed that student behaviour was deteriorating, and seemed at a loss as to why this was occurring.

I hate to be, ‘Oh, in my day it was never like that.’ But I’ve been teaching for 17 years. There’s definitely a change in that attitude. ‘You can’t tell me what to do. I’ll do what I like. I don’t have to do your detention. I’m going to tell my mum on you.’ (Hannah)

I feel really sorry for those teachers coming out now because they’re hitting quite strong behaviour challenges right from the start, whereas when I started, look, this would be 25 years ago, you didn’t have what we have now. (Sally)

Others noted that challenges can arise on a daily basis and that classroom management is never done. A common message was that teachers can never be complacent in relation to behaviour, or think that they have all the answers.

And so I never think that, there is no way that I could say my classroom management is perfect, never. There are always going to be, you know, off days and challenges and whatever, and as long as I keep that in the forefront of my mind and I realise that, you know, I’m not the perfect classroom manager, I just need to manage as best as I can and I need to keep working with the kids, then it will be successful, but I would never say that I’m, you know, there’s nothing that I need to not learn; there is always something I need to learn. So it’s definitely something that you always have to keep at; you can never get it 100% perfect. (Lesley)

Well, I never have a proper fix on it, it’s like I never feel that I’ve got them there yet, because it’s like there’s a slippery slope all the time. (Sally)

In addition, more than 50% of the interviewees discussed the challenges involved with teaching certain groups or classes, with many commenting on the complexity of
teaching different year levels in secondary school. Many teachers reported having more behavioural issues with junior classes, and even those teaching exclusively senior groups were aware of the challenges facing junior school teachers with behaviour. The recent move of Year 7 to secondary school seemed to have created problems for a number of schools, with concerns voiced about the immaturity of students in these classes.

Another frequently raised concern among the teachers interviewed was the experience of encountering more behavioural issues when working with groups of unknown students, whether during playground supervision or when first meeting a class, starting at a new school, or supervising a class not normally taught. Teachers talked about the difficulty of dealing with problem behaviour without having an established relationship with the group or particular students. Many of these teachers said that they did not have many behaviour issues in their own classes, but found problem behaviours in the playground or in unknown classes to be more prevalent and more difficult to deal with, as described by veteran teacher Paul, in this example.

Students in the playground will you know, they’ll give you a fake name, they’ll run away from you with the understanding that you might not know them, um and they’ll, they’ll take that gamble and, you know, deny that they did anything I think because I don’t, I don’t have that rapport with them.

The most common behavioural concerns related to lack of student engagement and disrespect. Concerns about student engagement weighed heavily on a number of the teachers interviewed, with several talking at length about what they do to try to engage students. Candy highlighted her concerns regarding lack of engagement in this way.

I would say one challenge is that there’s a difference between kids who are well behaved and kids who are engaged. Just because they’re sitting there quietly and they look like they’re doing the right thing doesn’t mean that they’re actually doing, that they’re listening or they’re actually, you know, engaging with the work or any of that.
Table 20 displays the specific behavioural concerns raised throughout the interviews, and the number of teachers raising the concern. Although a few teachers talked about more serious infringements, such as violence and drug taking, these teachers were very much in the minority.

<table>
<thead>
<tr>
<th>Concern</th>
<th>Number of mentions</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>engagement</td>
<td>7</td>
<td>Feeling that students don’t really care about learning or are difficult to motivate</td>
</tr>
<tr>
<td>disrespect</td>
<td>7</td>
<td>Concerns about lack of respect, arguing with teacher or refusing to follow instructions</td>
</tr>
<tr>
<td>disruption</td>
<td>4</td>
<td>Concern that a few students disrupt the learning for others</td>
</tr>
<tr>
<td>swearing</td>
<td>3</td>
<td>Viewed as a serious concern</td>
</tr>
<tr>
<td>talking</td>
<td>3</td>
<td>Not seen as a major issue; used to illustrate that classroom behaviour generally is good</td>
</tr>
<tr>
<td>social media</td>
<td>2</td>
<td>Cyber bullying and bringing issues from outside into school</td>
</tr>
<tr>
<td>aggression&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2</td>
<td>Viewed as a serious concern although not prevalent</td>
</tr>
<tr>
<td>aggression&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1</td>
<td>Considered more prevalent than physical aggression</td>
</tr>
<tr>
<td>bullying</td>
<td>1</td>
<td>A problem in junior classes</td>
</tr>
<tr>
<td>drugs/alcohol</td>
<td>1</td>
<td>Seen as a community issue which is brought into schools</td>
</tr>
<tr>
<td>mobile phones</td>
<td>1</td>
<td>Frustration with use in class</td>
</tr>
</tbody>
</table>

*Note.* <sup>a</sup>Physical aggression; <sup>b</sup>Verbal aggression.

**Curriculum.** Just under 50% of interviewees voiced concerns about the suitability of the curriculum for some students and stated the belief that many problem behaviours arise due to a mismatch between the level of the work and individual student capability. Many teachers blamed curriculum inflexibility and failure to differentiate for the majority of classroom misbehaviour.
The students are misbehaving because they’re not able to access the learning so having a behaviour management policy that targets the behaviour and not the root of the problem is very difficult to implement. (Greg)

At the same time, lack of support for teachers to learn how to differentiate was also mentioned. Della, a teacher with less than 3 years of experience, talked about her reluctance to ask for help because of the expectation that she should know how to differentiate effectively.

It doesn’t feel like it’s encouraged for you to be able to say, ‘Hey I’m having problems with differentiating’ because that’s one of those skills that you’re supposed to have as a teacher.

Veronica, with over 20 years of teaching experience, also reflected on the difficulties of finding the time to differentiate instruction for the range of learners within one class.

I can think of one class in which I need, you know, if I was doing my job exceptionally well, I would be planning for probably five different lessons within my one lesson because I have a hearing impaired student, a sight impaired student, I have two who have independent education, oh, what do they call them, ICPs – I don’t even know the term here in Queensland anymore. So they have to have individual learning plans, and then I’ve got my content at different levels just for the mainstream kids. So, it’s very quickly unworkable. It’s very difficult to manage that curriculum as well as the behaviour. I think the two go hand in hand, and demands on teachers are pretty amazing at the moment.

**Summary of Interview Results**

Interviews were conducted with 26 secondary school teachers, with varying degrees of teaching experience, from across Queensland. Key themes were established following a thematic coding process, enabling important ideas and patterns in the data to be reported. An overarching theme named *classroom management beliefs* enabled teachers’ general views about classroom management to be reported and showed that the majority of the teachers interviewed placed importance on building positive relationships with students as a
foundation for effective classroom management. Most felt confident in their ability as effective classroom managers, but were cognisant of the need for continual upskilling in response to emerging challenges. Many of the teachers believed that classroom management skills were best learned through experience or from colleagues.

Three main themes were identified in the thematic analysis of interview responses. The first theme of *practices* was further categorised into sub-themes describing the main strategies used by teachers to manage their classrooms effectively. These sub-themes were (a) *organisation and routines*, (b) *expectations and boundaries*, (c) *pedagogy*, and (d) *correction*. Many teachers reported relying on consistent expectations and consequences, but there was also an awareness of the need to differentiate teaching and learning in order to prevent problems with student behaviour.

The second main theme identified was *research*, with the sub-themes of *knowledge and understanding* and *value to teachers*. Teachers had a general understanding of the principles of evidence-based practices, but were unaware of specific practices considered to be evidence based. In general, teachers were positive about the value of research to practitioners, but were suspicious about the ways that research was sometimes presented to teachers.

The final theme identified in the thematic analysis was *challenges*, which was broken down into three sub-themes of *training and support*, *school systems*, and *day-to-day challenges*. The majority of the teachers interviewed reported dissatisfaction with pre-service teaching courses, school induction processes, and access to ongoing professional development for classroom management. Concerns were also identified in relation to lack of support and resourcing, including having access to support from school administrators, and inconsistency or inflexibility in school disciplinary processes.
Chapter Summary

This chapter has presented Phase 2 results, drawn from the thematic analysis of 26 phone interview responses. Taken as a whole, the interview results indicate that the participating teachers felt reasonably confident in their ability as effective classroom managers, and believed that classroom management skills were best learned through experience. The practices which the interviewed teachers mainly relied on were having clear expectations and boundaries, underpinned by developing positive relationships with students. Interview responses also showed that there was a lack of awareness of specific evidence-based practices for classroom management. In addition, many teachers identified challenges with managing student behaviour due to ineffective school procedures. The next chapter interprets and discusses Phase 1 (survey) and Phase 2 (interview) results.
CHAPTER 6: SYNTHESIS OF SURVEY AND INTERVIEW RESULTS

Introduction

The present study sought to investigate the classroom management practices of Queensland secondary school teachers by examining those practices which teachers reported using most frequently and the extent of their reported use of 14 EBPs. Factors impacting on teachers’ implementation of EBPs for classroom management, including exposure to the PBL framework, were also explored. A survey and phone interviews were the two methods of data collection. The data were analysed using descriptive statistics, regression analysis, and thematic analysis. This chapter synthesises and discusses the research findings beginning with an overview of the key findings, followed by a discussion of the results relevant to each research question.

Summary of Key Findings

Results from the quantitative and qualitative research phases were integrated to provide a synthesis of overall findings. Taken as a whole, the findings from this research indicate a strong bias in Queensland secondary schools towards practices which aim to control student behaviour, underpinned by an approach to classroom management which sees student behaviour as needing to be managed by the teacher. Although interview responses showed a stronger emphasis on the importance of building positive relationships with students than did responses in the survey, there was still a strong tendency to frame classroom management as being mainly about responding to problem behaviour. The predominant view that student behaviour needs to be managed by teachers appears to be bolstered by prevailing school systems which focus on sanctioning inappropriate behaviour, thus undermining the
implementation of positive behaviour support practices which take into consideration environmental impacts on behaviour, including teacher use of EBPs for classroom management. Findings also indicated that teachers have limited understanding about specific EBPs for classroom management, despite reporting high rates of use for most of the EBPs, which were a focus of the present study. For two of the EBPs (viz., “using a classroom reward system” and “maintaining at least a 4:1 ratio of positive to corrective feedback”) there was some indication that these were more likely to be used by teachers working in PBL schools, or with a good understanding of PBL principles. This finding aside, there was not a substantial difference in reported levels of use of EBPs, based on PBL implementation or knowledge. Major challenges to the implementation of EBPs for classroom management emerged from the teacher interviews and included lack of adequate initial teacher education in evidence-based classroom management, poor induction processes for beginning teachers, and ad hoc or limited professional development opportunities for continuing teachers. Challenges were also identified in relation to inadequacies in school systems for behaviour support, student behaviour, and meeting the learning needs of students. Further discussion of these findings now follows, including an examination of how findings from the present study relate to previous research outcomes. Findings are addressed sequentially, by consideration of each research question in turn.

**Reported Use of Classroom Management Practices**

**RQ 1. Which classroom management practices do Queensland secondary school teachers report using frequently?**

Free-text survey and interview responses provided a coherent picture of classroom management approaches favoured by Queensland secondary teachers. The first approach included practices aimed at establishing clear expectations and boundaries for behaviour. The
second approach relied on practices deriving from the ESCM professional development package, and the third rested on practices aimed at sanctioning unwanted behaviours. Each of these approaches is now discussed in turn, with reference to previous research.

**Establishing Clear Expectations and Boundaries**

Given the emphasis on establishment of rules and routines in pre-service teacher courses (Greenberg, Putnam, & Walsh, 2014), it could be expected that teachers would report frequent use of these well-established practices. Establishing expectations and routines are key elements of PBL (Sugai & Horner, 2002) and frequently included in pre-service teacher training (O’Neill & Stephenson, 2014) and in many classroom management texts (e.g., Marzano et al., 2003; Richmond, 2007; Simonsen & Myers, 2015). As such, many teachers would have had exposure to these components of classroom management. Dutton Tillery and colleagues (2010), in their survey of Kindergarten and Year 1 teachers, found that teachers relied heavily on the establishment of expectations to prevent the occurrence of problem behaviours, while in her survey of pre-service teachers, Shook (2012) found widespread agreement on the importance of having rules and routines in place. In a seminal teacher effectiveness study Evertson and Emmer (1982) reported increased rates of student engagement and reductions in behavioural disruptions when junior high school teachers spent time early in the year establishing rules and routines.

Considering the findings of previous research, and the ubiquity of advice in relation to establishing expectations for behaviour, it is not surprising that both survey and interview results showed that teachers reported relying on having clear expectations and boundaries in place as core classroom management practices. The majority of teachers reported that their approach to classroom management relied on consistency. The importance of having clear
boundaries and consistently referring to the classroom rules was a recurring theme in both survey responses and in interviews. Consistency was frequently mentioned in free-text survey responses, and comments made in interviews indicated that many teachers believed that consistency was the foundation for a successful classroom management approach. This view may in part stem from commonly offered advice from colleagues and school administrators. A predominant belief voiced by participating teachers was that being consistent allowed them to teach more effectively and establish respectful relationships with students.

The emphasis placed by the teachers in this study on having clear expectations and boundaries may at face value suggest that Queensland secondary teachers have embraced recommendations from the research to take a proactive, instructional approach to classroom management. However, closer analysis of the language employed in responses suggested that teachers “set” expectations and routines, as opposed to “teaching” these. This may appear to be a minor distinction, but there is an important difference. Referring students to the rules, or “telling,” suggests an emphasis on compliance, or adhering to rules set by the teacher, while “teaching” rules and routines emphasises an instructional approach to behaviour, showing an understanding of the role of the teacher in supporting students to learn how to use expected behaviours. Responses from teachers, in both the survey and interviews, suggested an approach to classroom management where rules and boundaries are put in place by teachers, but explicit teaching of how to follow these expectations, or the reasons for having them, may be missing. Tellingly, almost 50% of the survey free-text comments mentioning a consistent approach did so in relation to consistency of consequences, possibly indicating that for many teachers, classroom management is mainly about stopping problem behaviour rather than promoting appropriate behaviour. This interpretation is consistent with the
findings of previous Australian research (Roache & Lewis, 2011b; Sullivan et al., 2014) which has questioned the extent of use of a proactive classroom management approach.

**Use of Strategies from the Essential Skills for Classroom Management**

Findings indicated widespread familiarity and use of the ESCM, with a quarter of survey responses indicating frequent use of the strategies contained in this professional development package. Interview responses provided additional information on the way many schools employ this package as their classroom management framework of choice, perhaps due to a lack of access to other classroom management resources or training. Within interview responses there were frequent references to the expectation, often communicated by school administrators, that teachers should use the ESCM strategies as their main toolkit for classroom management. There were also frequent references in both the survey and interviews to participation in professional development on the ESCM.

Given that ESCM has been the only professional development resource for classroom management widely available to schools in Queensland, and that the package has been in circulation for over 20 years, such references no doubt attest to teacher familiarity with this resource. In the survey, teachers often referred to the package as a whole, for example in comments such as, “I rely on the Essential Skills,” which could be interpreted as a kind of shorthand to convey familiarity with, and use of, the strategies contained within the package. However, such general comments deserve further scrutiny in order to clarify the extent of knowledge and application of the ESCM strategies. It could be argued that mention of ESCM, or naming specific skills from the package verbatim without more detail on use, simply indicates teacher familiarity with ESCM terminology, or reflects the expectation from school
administrators that teachers should use the ESCM as their primary resource for classroom management.

Interview findings confirmed that there was a common expectation in schools for teachers to use ESCM as their toolkit for classroom management; therefore, mention of the package or specific strategies contained within it may not necessarily equate to frequent or thoughtful use. Weight is added to this argument by the lack of elaboration during interviews on a rationale for using any of the ESCM strategies. When teachers had the opportunity to explain their use of preferred classroom management strategies in the follow-up interviews, some teachers simply stated that the ESCM package formed the basis of their classroom management approach, or that the school expected them to use the ESCM strategies. When prompted for more information, most teachers talked in general terms about being consistent with expectations and routines, or redirecting students to the learning. This fairly narrow focus suggests a very teacher-directed approach with an emphasis on teacher management of behaviour.

Doubtless, the individual skills included within the ESCM package are useful strategies with some empirical support, yet the ESCM package was not intended as a panacea for effective classroom management in schools, but simply as a set of strategies which could support teacher practice (Queensland Department of Education, 2015). The widespread reliance on the package as a standalone classroom management toolkit may have contributed to a culture in schools where student behaviour is seen as needing to be managed and controlled by the teacher. Many of the teachers interviewed referred to use of the ESCM as the first step before following school behaviour management procedures. There did not appear to be a common understanding of the need to consider underlying reasons for student
behaviour in order to select strategies more likely to be effective, nor did there appear to be widespread understanding of the principles underpinning positive behaviour support.

There have been no previous studies which have looked at teacher use of the ESCM, no doubt influenced by the fact that ESCM is widely known and used only in Queensland state schools. One study has reported on an observation and feedback process known as Classroom Profiling, which is used in some schools to provide follow-up coaching opportunities to teachers in use of the ESCM (Jackson, Simoncini, & Davidson, 2013). This qualitative study involving 15 pre-service teachers found that participation in the profiling process increased pre-service teacher perceptions of classroom management knowledge and confidence.

**Sanctioning of Unwanted Behaviours**

Previous Australian research has found that teachers often use reactive and punitive strategies in response to problem behaviour (R. Lewis et al., 2005; Roache & Lewis, 2011a; Sullivan et al., 2014). In the USA, studies undertaken in elementary schools have reported frequent use of verbal reprimands, imposition of sanctions such as missing recess, and referring students to administration (Dutton Tillery et al., 2010; Shook, 2012). Findings from the current study largely support these previous research findings, although there is also evidence in the present study that teachers use a wider repertoire of responses, which include minimising attention to problem behaviour.

Analysis of the survey responses indicated that the main corrective responses that teachers reported using were reprimanding, moving students to another seat in the classroom, issuing detentions, contacting parents, and student referral to administration. The vast majority of teachers reported using some kind of warning system or imposition of sanctions
to address problem behaviour. Writing names on the board, keeping students in, or sending students out of the room were frequently mentioned responses. These findings were echoed in the analysis of phone interview data. In interviews, many teachers spent considerable time giving examples of ways that they responded to misbehaviour, although this was not a specific question. Teachers were asked to give examples of the classroom management practices they used on a day-to-day basis. The researcher reminded teachers at the start of the interviews that classroom management was being defined as “strategies or practices used to maximise engagement and create an environment conducive to learning.” This reminder was given in order to convey that the research was taking a broad view of classroom management, with a focus on prevention and student learning. Despite this strong signal to consider classroom management proactively, many teachers consistently framed classroom management in terms of responses to problem behaviour.

The tendency to view classroom management as a response to problem behaviour may indicate that teachers in Queensland consider “classroom management” and “behaviour management” to be synonymous. This interpretation supports arguments put forward previously by researchers, who have suggested that teachers tend to try to control student behaviour without necessarily considering the broader classroom ecology, including the preventative measures that can be put in place to avoid problem behaviour in the first place (Bromfield, 2006; Sullivan et al., 2014). However, the present study also provides some evidence that teachers are aware of the importance of drawing little public attention to misbehaviour, and often used body language, proximity, and redirection as a means of getting students back on track. Around a quarter of survey responses gave examples of this nature. Many teachers interviewed also talked about the importance of addressing problem behaviour privately and using low-key responses where possible.
In interviews, many teachers described building positive relationships with students as the foundation for their approach to classroom management. This was less so in the surveys, perhaps due to the nature of survey research. Surveys may be done in more haste and the space available for free-text responses is limited and may therefore elicit less detailed information (O’Cathain & Thomas, 2004). The importance of developing positive relationships with students underpins educational policy in Queensland (e.g., Queensland Department of Education, 2018d) and often receives strong endorsement within professional development curricula and classroom management textbooks (e.g., Marzano et al., 2003). It is therefore unsurprising that positive teacher-student relationships came through as a strong theme in teacher interviews. However, it is somewhat paradoxical that the use of exclusionary sanctions for problem behaviour was another predominant theme which emerged.

Overall, the present study adds weight to previous research which has found that classroom management approaches which aim to control student behaviour are prevalent, and that the predominant culture in secondary schools supports the punishment of problem behaviour, including the removal of students from the learning environment for behaviour infractions such as disruption and failure to comply. However, the current study also provides some evidence that there is an awareness among secondary school teachers in Queensland of the need to build positive relationships with students and draw little attention to problem behaviour.

**Perceived Use of EBPs for Classroom Management**

RQ 2. *To what extent do these teachers perceive that they use 14 EBPs for classroom management?*

Survey findings indicated that the majority of participating teachers perceived they had a good understanding of EBPs for classroom management and used 11 EBPs either
always or fairly often. In Part 2 of the survey teachers were asked to rate their knowledge and understanding of EBPs for classroom management. Only 4% of the teachers surveyed did not believe they had a good understanding of EBPs, with 10% unsure. Over 85% agreed or strongly agreed that they understood EBPs for classroom management. However, interview results suggested a more general understanding of EBPs, with most interviewees being aware that EBPs were based on research and the use of data, but unable to identify specific EBPs for classroom management.

**Reported Frequency of Use of EBPs**

Teachers were asked in the survey to rate their frequency of use of 14 EBPs for classroom management. A 5-point rating scale was used, with the following frequency ratings: never, occasionally, sometimes, fairly often, and always. There was also an option to provide additional comments at the end of this section, although few teachers took up this opportunity. Free-text responses provided earlier in the survey, and teacher interviews, also provided information on perceived teacher use of EBPs. In the survey, teachers generally reported frequent use of 11 of the 14 EBPs by selecting either the always or fairly often responses. There were three EBPs with substantially lower reported rates of use, namely “establishing, reviewing, and reteaching a small number of positively stated classroom rules,” “using a classroom reward system,” and “maintaining at least a 4:1 ratio of positive to corrective feedback.”

On the face of it, these results would appear to suggest that most of the research-based practices for classroom management are well known, with the majority of secondary school teachers incorporating use of EBPs for classroom management into their daily practice. However, previous studies and observations in schools call this interpretation into question.
It has been shown, for example, that secondary school teachers provide very few opportunities to respond to students, and that students with behavioural issues are even less likely to receive such opportunities, although teachers consistently report using this practice frequently (J. T. Cooper et al., 2018; Moore et al., 2017; Scott et al., 2011). Discrepancies between teacher self-report and observed practice have also been noted in a recent study from the USA reporting on implementation of EBPs (Briere et al., 2015). In addition, Australian research has found that students report more use of punitive practices from their teachers, than reported by teachers themselves (R. Lewis et al., 2008). Moreover, a comparison of the overall frequency ratings provided in the survey and responses given during teacher interviews points to a different reading. The teacher interviews asked teachers what they understood EBPs for classroom management to mean, and also gave teachers the opportunity to provide examples of what they considered to be EBPs for classroom management. Most teachers struggled to provide a definition, with those that did so speaking in general terms about strategies that derive from research, or strategies which have been shown to work through the collection of data. Some teachers referenced the work of popular educational researchers such as John Hattie or Robert Marzano, but could not provide specific examples, while others named the ESCM when asked to give an example of an EBP. No responses indicated familiarity with the range of practices commonly identified in classroom management research. This finding is consistent with a previous study from the USA, which found that 45% of teachers were unfamiliar with EBPs (Reinke et al., 2011).

There are two plausible explanations for the high frequency ratings reported for the majority of EBPs in this study. First, it would appear from teacher interviews that teachers are simply unaware of the classroom management practices which are considered to be evidence based. None of the teachers interviewed was able to offer examples of any specific
EBPs, indicating that they have not had opportunities to learn about EBPs for classroom management, and that the current information readily available to schools contains only general guidance about using an evidence-based approach, without provision of explicit examples or access to training and coaching on implementation. This means that teachers are very unlikely to have a deep understanding of the practices, including why, how, and when to implement. Teachers may therefore assume that they are using the practices, which may at a surface level seem familiar. However, without provision of explicit training, followed by self-evaluation or opportunities for performance feedback, teachers have no frame of reference to accurately self-assess.

Previous research has noted that use of EBPs may not be actively promoted in schools, with teachers being left to work out effective strategies through trial and error, or from more experienced colleagues (Bromfield, 2006; Oliver & Reschly, 2007). This may result in teachers making the assumption that their current classroom management practices match those recommended in the research, because current practices are embraced by colleagues, recommended by administrators, and viewed with approbation within current school systems. In reality, there may only be a superficial resemblance between actual practices and thoughtful, strategic use of EBPs (Timperley, 2015).

Second, the teachers included in this study were mainly experienced teachers who had been teaching for over 5 years, and might therefore have been more likely to perceive themselves as effective classroom managers, or to portray themselves in this light, due to a desire to be positively regarded (Donaldson & Grant-Vallone, 2002). In fact, more than 90% of the teachers surveyed agreed that they had the knowledge and skills to prevent most common behavioural issues and were confident in responding to problem behaviour. This confidence was reflected in interviews, with the majority of interviewees reporting no major
concerns in relation to classroom management. Similar levels of confidence have been reported in previous Australian research. For example, a study of primary teachers found that around three-quarters reported either having *much confidence* or being *extremely confident* in managing student behaviour (Clunies-Ross et al., 2008). However, it should be borne in mind that teachers who volunteer to participate in classroom management research may be mainly teachers who feel confident and who are therefore more willing to share their classroom management experiences.

**Practices Which Teachers Reported Using Least Frequently**

There were three practices which teachers reported using less often, as compared to the other EBPs that were listed in the survey. These were (a) “establishing, reviewing, and reteaching a small number of positively stated classroom rules,” (b) “using a classroom reward system,” and (c) “maintaining at least a 4:1 ratio of positive to corrective feedback.” Only 24% of survey respondents reported *always* “establishing, reviewing, and reteaching a small number of positively stated classroom rules.” Given the strong empirical support for explicitly teaching rules as a way to prevent most common problem behaviours (e.g., Alter & Haydon, 2017; Gable et al., 2009) it might be expected that more teachers would report consistent use of this practice. Research conducted at the elementary school level in the USA has found widespread teacher use of rules and expectations (Reinke et al., 2013; Shook, 2012). However, a decline in teacher practice in relation to teaching expectations has been noted at the secondary level (Borgmeier et al., 2016). Borgmeier and colleagues suggested three possible reasons for this decline. First, there may be a greater need for use of some practices at the primary schooling level. Second, it may be more difficult to implement some practices in secondary schools. Third, teacher perceptions of their roles and responsibilities as teachers...
may change according to school sector. The latter reason may account for the results reported here, and may indicate that secondary school teachers in Queensland place less emphasis on explicitly teaching expectations due to a belief that their role is to teach the academic curriculum and that secondary school students should already know the rules.

The second practice with lower reported usage rates was “using a classroom reward system.” A minority of participants reported that they always or fairly often used a system for providing classroom rewards to students for appropriate behaviour. Less than half of the teachers surveyed said that they used a reward system on a regular basis, and 16% reported never “using a classroom reward system,” despite around 50% of the surveyed teachers working in a school implementing PBL. Provision of acknowledgement and rewards is fundamental to PBL implementation (Sugai & Horner, 2002), yet only a handful of the teachers in the current study mentioned using a schoolwide PBL reward system in free-text survey response or in interviews, giving examples such as providing stickers, especially when working with younger year levels.

This finding is consistent with a study of 24 secondary schools in the UK, which found few instances of reward systems, and rare use of tangible rewards (Merrett, Wilkins, Houghton, & Wheldall, 1988). In contrast, a more recent survey of elementary teachers in the USA found that the majority of the surveyed teachers used tangible rewards, with the entire sample reporting that they used classroom rewards on a regular basis (Hoffman, Huff, Patterson, & Nietfeld, 2009). Consistent teaching and reinforcement of expected behaviours have previously been identified as challenging for secondary school teachers (Borgmeier et al., 2016; Fallon et al., 2014), suggesting that there may be a prevailing culture in secondary settings which inhibits the use of rewards. There has been a long-standing debate about the use of rewards in schools, with many educational articles and textbooks claiming harmful
effects on students (Akin-Little, Eckert, Lovett, & Little, 2004). It is therefore not surprising that many educators continue to believe that provision of external rewards is detrimental to the development of intrinsic motivation (Scott, 2017). This may account for the findings of one study where elementary teachers rated use of group contingencies as having low acceptability (Briesch et al., 2015). The lack of rewards in secondary schools, in particular, may be based on the view that older students should not have a need for extrinsic rewards and should know how to behave, without needing added incentives to do so. Another reason for the lack of use of classroom rewards in secondary schools could be the time involved in administrating classroom reward systems for teachers with multiple classes. The difficulty of identifying highly motivating rewards for secondary students may also be a barrier in secondary settings. It is also possible that teachers may have formed negative perceptions on use of rewards due to a lack of understanding of the principles of positive reinforcement. A combination of attitudinal and logistical barriers to frequent provision of rewards at the secondary level is likely to explain the low reported rates for use of classroom rewards.

The final practice with low reported usage rates was “maintaining at least a 4:1 ratio of positive to corrective feedback.” Only 24% of teachers stated they always maintained and monitored use of a 4:1 ratio, and a total of 36% reported use sometimes, occasionally, or never. A ratio of 4:1 positives to correctives is frequently recommended in the research (Scott et al., 2011) and it is likely that many secondary school teachers would have heard of the 4:1 ratio, through exposure to the ESCM and Richmond’s Balance Model (Richmond, 2007). Provision of positive feedback is widely recommended to teachers due to its positive impact on student behaviour and learning (Gable et al., 2009; Hattie, 2008). It might therefore be expected that more teachers would report always using more positives to correctives, although previous Australian research has found otherwise. Clunies-Ross and colleagues
(2008) reported on a study which involved 97 Australian primary school teachers. Self-report and subsequent observations were used to gather data on teacher use of proactive and reactive classroom management strategies. Although it was found that the majority of teachers used more praise statements than reprimands, this result was reversed when comments in relation to social behaviour were considered separately. In fact, the teachers in this study were three times more likely to reprimand student behaviour than to praise it. In the USA recent survey research has also found that high school teachers report less use of the 4:1 ratio than do middle school or elementary school teachers (Borgmeier et al., 2016). Results from the present study therefore concur with previous findings that teachers tend to pay more attention to negative rather than positive student behaviour.

Provision of verbal acknowledgment, or praise, for appropriate behaviour is related to use of rewards, in that both of these practices aim to increase student use of desired behaviours by the provision of reinforcement. It is therefore possible that some of the reasons for resistance to the use of tangible rewards previously discussed also apply to the use of verbal acknowledgement. In other words, some teachers may question the need to verbally acknowledge students for demonstrating behaviours that are expected (Akin-Little et al., 2004). Another possible explanation for the comparatively infrequent implementation of a 4:1 ratio reported by teachers in the present study is the human inclination to notice the negative, and the effort required to reverse this tendency (C. R. Cook et al., 2017).

**Practices Which Teachers Reported Using Most Frequently**

The surveyed teachers overwhelmingly reported very frequent use of two EBPs, namely, “actively monitoring the classroom” and “giving clear instructions for activities.” More than 80% of teachers reported always using these practices. Given the underlying
importance of these practices to effective teaching (Archer & Hughes, 2011), this is not a surprising result. Early descriptive research into effective classroom management (e.g., Brophy, 1986; Emmer et al., 1980; Everston & Emmer, 1982; Kounin, 1970) identified the positive student outcomes associated with teacher awareness and monitoring and instructional clarity. Kounin’s term of “with-itness” has entered into the classroom management lexicon and is widely accepted as a critical component of effective teaching. Likewise, several seminal studies have attested to the importance of instructional clarity for effective teaching (e.g., Emmer et al., 1980; Everston & Emmer, 1982; Evertson, 1985). Given the fundamental nature of these practices it seems unlikely that teachers would report being unaware of what is going on in the classroom, or giving instructions that are unclear. This interpretation is borne out by results from previous survey research showing that teachers tend to rate themselves highly on use of active supervision and giving clear instructions (Borgmeier et al., 2016; J. T. Cooper et al., 2018).

The next practice to be rated as frequently used by teachers was “using non-verbal acknowledgement to encourage appropriate behaviour.” Results showed that 60% of teachers reported always and 32% reported fairly often using this practice. Free-text responses and interview responses confirmed that some teachers were aware of using non-verbal acknowledgment to indicate to students that their behaviour was appropriate. The use of non-verbal acknowledgement by effective teachers, for example by smiling and providing eye contact, was noted by Emmer and colleagues (1980), but there have been no published studies looking specifically at teacher use of non-verbal acknowledgement. Most researchers (e.g., Gable et al., 2009) consider non-verbal acknowledgement to be a variant of teacher praise, used to reinforce student behaviour. In Queensland, teachers are likely to be familiar with the use of non-verbal acknowledgement since “body language encouraging” is one of the ESCM.
However, the majority of comments which mentioned the use of body language or non-verbal signals, either in free-text survey responses or in interviews, were in relation to use of non-verbals as a signal for inappropriate behaviour. This distinction may indicate that teachers are more likely to employ non-verbal signals as a low-level corrective response.

**Practices Which Teachers Reported Using Less Frequently**

Teachers reported using most of the EBPs in the survey either *always* or *fairly often*. On the surface, this may appear to suggest that secondary teachers in Queensland are well versed in the use of established EBPs for classroom management. Closer analysis of the results, however, challenges this assumption. Although close to 80% or more of teachers reported *always* or *fairly often* using most of the EBPs listed in the survey, the percentage of surveyed teachers reporting *always* using these practices was much less. In fact, slightly more than a third to just over a half of teachers said that they *always* used eight EBPs. These were (a) “teaching classroom procedures and routines explicitly,” (b) “consistently responding to problem behaviour,” (c) “organising the classroom management to maximise engagement,” (d) “differentiating instruction to suit the learner,” (e) “providing all students with frequent opportunities to respond,” (f) “providing specific descriptive feedback on appropriate behaviour,” (g) “providing frequent prompts for appropriate behaviour,” and (h) “incorporating a teaching opportunity when responding to minor behavioural concerns.”

The positive outcomes associated with consistent use of these practices have been documented in a number of studies. It is therefore troubling that up to a half of the surveyed teachers did not report *always* using these well-researched practices. Several studies have found that consistent teacher implementation of practices, such as providing prompts for appropriate behaviour and giving specific feedback on expected behaviours, is associated
with increased student time on task and decreased disruptive behaviour (e.g., De Pry & Sugai, 2002; Gunter et al., 2002; Kern & Clemens, 2007; Wharton-McDonald et al., 1998). In addition, a number of literature reviews and meta-analyses have confirmed the evidence-based status of practices including teacher provision of multiple opportunities to respond, organising the classroom environment, and responding consistently to problem behaviours (e.g., MacSuga-Gage & Simonsen, 2015; Marzano et al., 2003; Simonsen et al., 2008).

The finding that Queensland secondary teachers report irregular use of some EBPs is inconsistent with recent survey research, but in line with observational studies conducted in the USA. For example, surveys there have found that teachers report frequently teaching procedures and routines (Borgmeier et al., 2016; J. T. Cooper et al., 2018; Moore et al., 2017), providing curriculum at the appropriate instructional level, and providing frequent opportunities to respond (J. T. Cooper et al., 2018). In the previously referenced study conducted by Borgmeier and colleagues (2016), reported implementation rates of EBPs were compared across school sectors. On the whole, implementation rates for high school teachers were lower in comparison to rates for elementary and middle school teachers. However, around 62% of high school teachers reported always responding positively, consistently, and quickly to minor behaviour problems, in comparison with 42% in the present study who reported always responding consistently to problem behaviour.

In contrast, observational research from the USA has found that teachers in both primary and secondary settings provide few opportunities to respond to students (Reinke et al., 2015; Scott et al., 2011). Infrequent provision of positive feedback to students has also been reported in secondary settings. According to J. T. Cooper and Scott (2017), secondary school students receive significantly less positive feedback from teachers than do primary students. Research conducted in Australia has also concluded that secondary school teachers
use less recognition for positive behaviours than do primary school teachers (Roache & Lewis, 2011b). In addition, Australian research has found that teachers often respond to problem behaviours by trying to reason with the student, or imposing sanctions (Roache & Lewis, 2011b; Sullivan et al., 2014).

Results from the present study indicated that less than half of the teachers surveyed believed that they always responded consistently to problem behaviour. Given the importance placed on consistency by many of the teachers surveyed and interviewed, this is an interesting finding. One possible explanation is that the strong emphasis placed on consistency in secondary schools, evident in many survey and interview responses, may have contributed to a heightened awareness of the difficulties of achieving consistency in schools. It is possible that teachers were more aware of potential shortcomings in responding consistently due to having experienced inconsistency within the secondary school system.

There are other plausible explanations for some of the results reported here, related to secondary school settings in Australia. Lower rates of reported use for well-established practices such as “teaching classroom procedures and routines explicitly” and “organising the classroom management to maximise engagement” may reflect the pressure felt by secondary school teachers in Australia to focus on getting through the curriculum. The strong assessment focus in secondary schools may lead to a prioritisation of teaching curriculum content, in order to prepare students for final assessment. This could impact on teacher willingness to take time to explicitly teach and acknowledge expected behaviours. In addition, there are many constraints in secondary school settings which make it more difficult for teachers to engineer the environment to make it more conducive to learning. For example, many secondary school teachers do not have a home room, share a classroom, or have several different classes in the same classroom, meaning that there may be restrictions on how the
classroom is set up. Some secondary school subjects are taught in purpose-built areas which do not allow for movement of furniture. Science classrooms, for example, are often set up with rows of benches and a platform area for demonstrations at the front of the room. Finally, the timetabling in secondary schools, with a certain time allocation for each subject, can make it difficult for teachers to find time at the beginning and end of the lesson to change the classroom layout.

Taken as a whole, results from the present study suggest a discord between teacher perceptions about evidence-based classroom management, and their actual understanding of EBPs for classroom management. Teachers reported frequently using the bulk of 14 EBPs, with practices related to teaching and reinforcing expected behaviours being notable exceptions. However, there were few examples provided which would corroborate the effective and consistent use of most practices. Interview responses confirmed that teachers did not have an in-depth knowledge of EBPs and could not provide specific examples of EBPs for classroom management. It therefore seems likely that participating teachers overestimated their use of EBPs in the survey due to an unclear understanding of the components and implementation steps for each practice.

**PBL Implementation and Understanding**

*RQ 3. Do teachers (a) working in schools using the PBL framework, or (b) perceiving that they have good understanding of PBL principles, report higher levels of use of EBPs for classroom management?*

More than 50% of teachers surveyed reported teaching in a PBL school, or having good understanding of PBL principles. The most notable differences in reported rates of use of EBPs dependent on PBL implementation or understanding were for “using a classroom reward system” and “maintaining at least a 4:1 ratio of positive to corrective feedback.”
Teachers who were working in schools implementing PBL, or who reported good understanding of PBL principles, reported using these practices more frequently than teachers not working in PBL schools or not having a good understanding of PBL principles. However, a comparison of the results from two schools where a paper version of the survey was administered showed that teachers in the school implementing PBL reported higher frequency use of “organising the classroom management to maximise engagement” and “using a classroom reward system.” Teachers in the school not implementing PBL reported more frequent use of “teaching classroom procedures and routines” and “use of non-verbal acknowledgement.”

**Working in a PBL School or Having PBL Knowledge**

Just over half of survey respondents said they were teaching in a school implementing PBL, with 56% agreeing or strongly agreeing that they had a good understanding of PBL. There were no substantial differences between responses from teachers working in PBL implementing schools and teachers reporting good understanding of PBL, which is not a surprising result given that PBL knowledge is more likely to grow when working in an implementing school. The similarity in the proportion of teachers working in PBL schools and with good understanding of PBL is likely to indicate that teachers working in schools not implementing PBL are less aware of PBL principles and features, mainly due to lack of exposure to professional development in implementing PBL, or not having school systems which support use of PBL practices. The way that PBL has been disseminated to state schools in Queensland has meant that only schools which submit an application to be trained in PBL implementation receive access to regional professional development and ongoing support (Hepburn, 2019). Although schools may choose to implement components of PBL, by drawing on materials available online or provided by other schools, there is no structured
system of support for such schools, nor is implementation monitored. It would therefore be expected that PBL understanding would be enhanced in those schools making an official commitment to PBL implementation.

**Differences in Survey Responses**

The first difference apparent across the survey as a whole between teachers in PBL schools, or with a good understanding of PBL, and those without a PBL background was for “using a classroom reward system.” More than 50% of teachers who were either working in a PBL school or who believed they had a good understanding of PBL, reported *always* or *often* using a reward system. In comparison, less than a quarter of those in a non-PBL school or not understanding PBL reported *always* or *often* using a reward system. In addition, teachers unfamiliar with PBL were more likely to report *never* using rewards. This result supports the hypothesis that schoolwide systems which promote reward giving lead to increased use of rewards in classrooms. The more frequent use of classroom rewards reported by teachers in PBL schools, or understanding PBL principles, suggests that secondary school teachers may be more likely to use rewards to motivate and acknowledge students for displaying expected behaviours when they are supported by a schoolwide system which provides a rationale and guidelines for use. While there are no published studies which test this hypothesis, a study in the USA has found that teachers in SWPBS schools reported being more likely to teach and reinforce expected behaviours (Ficarra & Quinn, 2014).

Unsurprisingly, “maintaining at least a 4:1 ratio of positive to corrective feedback” was the second practice with a substantial difference in responses from teachers either working in PBL schools or with good understanding of PBL principles, and teachers working in non-PBL schools or not understanding PBL. Close to 60% of the teachers familiar with
PBL reported *always or often* using this practice, compared with 44% of teachers in non-PBL schools and 29% not understanding PBL principles. The provision of positive feedback is related to use of a class reward system in that the principles of positive reinforcement underpin the giving of positive verbal acknowledgment. The goal of maintaining a 4:1 ratio is based on the tenet that providing positive acknowledgment to students for demonstrating appropriate behaviours is a more effective means to increase use of expected behaviours than relying on correction, which may inadvertently increase problem behaviours. Substantially more teachers working in PBL schools, or with a good understanding of PBL, reported maintaining and monitoring a 4:1 ratio, even though two of the skills in the widely available ESCM package focus on the use of acknowledgement to promote positive behaviour. This suggests that systems that are embedded in PBL schools, such as the development of schoolwide reward systems based on the principles of positive reinforcement, may support increased use of teacher acknowledgment in classrooms. As previously discussed, the use of rewards in schools continues to be a contentious issue (J. Cameron, Banko, & Pierce, 2001; Deci et al., 2001) with some ensuing reluctance to incorporate the use of rewards into regular practice. By contrast, the PBL framework, drawing on the technology of ABA, places strong focus on the importance of positive reinforcement. As such, all PBL schools are expected to set up schoolwide reinforcement systems, which teachers are meant to use within their classroom to acknowledge expected behaviours (OSEP Technical Assistance Center on Positive Behavioral Interventions and Support, 2015). It is possible that the general antipathy to use of reinforcement in secondary schools has been slightly mitigated by the adoption of PBL by many schools in Queensland.
Comparison of PBL and Non-PBL School

Responses from the two schools completing the paper version of the survey were compared and showed notable differences in reported frequency of use of four practices: “organising the classroom management to maximise engagement,” “teaching classroom procedures and routines,” “use of non-verbal acknowledgement,” and “using a classroom reward system.” Teachers in the PBL implementing school reported more use of “organising the classroom management to maximise engagement” and “using a classroom reward system.” The majority (90%) of teachers in the PBL school reported that they always or often organised the classroom environment for engagement, compared to around 50% of the teachers in the non-PBL school. Results for “using a classroom reward system” were even further apart, with fewer than 20% of teachers in the non-PBL school reporting frequent use, compared to 70% of teachers in the PBL school.

The large difference in reported use of a classroom reward system between the two schools is not surprising, given that PBL implementation rests on an understanding of the principles of positive reinforcement, as previously discussed. However, the other differences are more difficult to account for. The teachers in the school implementing PBL reported higher rates of use for “organising the classroom environment to maximise engagement” while teachers in the school which was not implementing PBL reported higher frequency use of “teaching classroom procedures and routines” and “use of non-verbal acknowledgement,” with 90% of teachers in the non-PBL school reporting frequently “teaching classroom procedures and routines,” as opposed to 75% in the PBL school. For “use of non-verbal acknowledgement,” 95% of teachers in the non-PBL school reported frequent use compared with 70% in the PBL school.
It seems likely that the differences in reported rates of use for these practices are attributable to a combination of factors specific to each school, such as the degree of exposure to professional development and school expectations in relation to strategies that teachers should use for day-to-day classroom management. Additionally, the small number of teachers responding to the paper survey, and the disproportionality in response rates between the two schools mean that it would be unwise to read too much into these results.

To date there has been no Australian research which has examined teacher use of classroom management practices in schools implementing PBL. Given the policy support and investment in PBL implementation in the state schooling system in Queensland over the previous 10 years (Hepburn, 2019), this is an important area of investigation. Recent research points to the need for classroom management practices aligning with PBL to be implemented by teachers in classrooms in order to achieve sustainability and effectiveness of schoolwide implementation (Yeung et al., 2016).

Emerging research from the USA on whether schoolwide implementation of SWPBS increases teacher use of proactive classroom management practices has been mixed, with some studies finding that teachers in schools implementing SWPBS were more likely to report using preventative practices and to report higher levels of use of some EBPs (Fallon et al., 2014; Feuerborn & Chinn, 2012; Feuerborn et al., 2016). Other studies have reported low levels of use of EBPs for classroom management, even in schools implementing SWPBS with fidelity (Reinke et al., 2013).

The preliminary investigations carried out in the present study would appear to indicate that schoolwide PBL implementation has had a limited effect on teacher classroom management practices. However, the integrity of PBL implementation across all schools in Queensland cannot be guaranteed. Lack of implementation fidelity of PBL implementation
in state schools has been recently noted in both Queensland and New South Wales (Deloitte Access Economics, 2017; NSW Ombudsman, 2017). This is in part due to a lack of adequate implementation support currently provided to schools and an absence of systematic monitoring of implementation (Deloitte Access Economics, 2017). As a result, many schools in Queensland that claim to be implementing PBL may be lacking some of the key components needed for effective implementation. In particular, schools may have overlaid some of the features of PBL onto existing traditional disciplinary approaches.

**Factors Impacting on use of EBPs**

*RQ 4. What is the impact on perceived use of EBPs for classroom management of (a) teacher demographics, such as gender, years of teaching experience, and subject areas taught, (b) having access to professional development in classroom management, and (c) confidence and concerns with classroom management?*

Teacher and school demographics did not appear to be associated with the frequency of reported use of EBPs for classroom management in the present study. However, some slight effects were noted for the frequency of use of some EBPs for certain conditions. Most notably, reporting a good understanding of EBPs for classroom management increased the likelihood of high-frequency ratings for many of the practices. Attending professional development on classroom management, reporting having the knowledge and skills to prevent problem behaviour, and reporting confidence in managing problem behaviour all had a small positive effect on the reported frequency of use of some EBPs. In addition, feeling stressed in relation to behaviour had a slight negative effect on the use of four practices, but firm conclusions about teacher stress levels and use of EBPs for classroom management could not be drawn due to the complex relationship between stress, coping skills, and self-efficacy, which were not within the scope of this investigation.
Teacher and School Demographics

The survey collected data on a number of demographic factors such as gender, age, subject areas taught, and school location. None of these variables was found to make any important difference to the reported rates of use of EBPs. Similar findings have been reported in studies conducted in the USA. In their study of teachers’ classroom management practices in SWPBS schools, Fallon and colleagues found no meaningful differences in participant responses based on demographic characteristics (Fallon et al., 2014). Similarly, an investigation into teacher knowledge and use of EBPs did not show any important differences in teacher use of practices based on teacher characteristics (J. T. Cooper et al., 2018).

In the present study it had been hypothesised that teaching subjects outside of qualification area might impact on the reported frequency of use of classroom management practices, but this was not shown to be the case. It was also an interesting finding that length of time teaching did not have any significant impact on reported use of EBPs, especially considering the strong belief voiced by many teachers in this study that classroom management was only learned through experience. The majority of teachers in this study had more than 5 years of teaching experience, which may help account for this finding.

Attendance at Professional Development for Classroom Management

Teachers who indicated that they had attended professional development in classroom management in the past 18 months were slightly more likely to report more frequent use of “organising the classroom management to maximise engagement,” “establishing, reviewing, and reteaching a small number of positively stated classroom rules” and “providing specific, descriptive feedback on appropriate behaviour.” These are all basic classroom management practices which one would expect to be included in classroom management training, thus
these results are not remarkable. Survey and interview responses confirmed that most of the professional development in classroom management provided to teachers was provided internally by schools. Advice in relation to setting up the classroom, establishing rules, and providing acknowledgement for appropriate behaviour is likely to be a key component of the kind of universal, broad-brush classroom management training often provided by schools. The lack of satisfaction reported in interviews with the classroom management professional development on offer may in part be due to the generic nature of much of this training. As discussed in Chapter 2, it is recognised that ongoing professional development is an important component of teacher learning, but the quality and targeting of professional development may not be conducive to transfer of information to practice (Borko, 2004).

**Having the Knowledge and Skills to Prevent Problem Behaviour**

Teachers who reported having the knowledge and skills to prevent problem behaviour were slightly more likely to report high frequency ratings for “teaching classroom procedures and routines explicitly,” “establishing, reviewing, and reteaching a small number of positively stated classroom rules,” “providing frequent prompts for appropriate behaviour,” and “incorporating a teaching opportunity when responding to minor behavioural concerns.” These are, in fact, all examples of practices which focus on prevention; therefore, this result is consistent with having the knowledge and skills to prevent problem behaviour. Notably, the last of these practices, “incorporating a teaching opportunity when responding to minor behavioural concerns,” recognises the importance of preventatively addressing behavioural concerns in the same way that academic concerns are addressed, by providing additional teaching to avoid a recurrence of the same problem.
Confidence in Managing Problem Behaviours

Teachers who reported feeling confident in managing problem behaviours were slightly more likely to report frequent use of two practices: “use of non-verbal acknowledgement” and “consistently responding to problem behaviour.” This result makes sense for the latter of these two practices; if teachers are confident that they can manage most common behavioural problems this is likely to help them to respond consistently. However, the use of non-verbal acknowledgement for appropriate behaviour would appear to have little to do with confidence in managing problem behaviour. Perhaps teachers were thinking of the use of non-verbal prompting to students behaving appropriately as a parallel cue for students demonstrating inappropriate behaviour. Free-text survey responses seemed to indicate that many teachers used non-verbals in this way.

Understanding EPBs for Classroom Management

Teachers who reported having a good understanding of EBPs for classroom management were slightly more likely to report frequent use of half of the 14 EBPs in the survey. These were “teaching classroom procedures and routines explicitly,” “establishing, reviewing, and reteaching a small number of positively stated classroom rules,” “providing all students with frequent opportunities to respond,” “differentiating instruction to suit the learner,” “incorporating a teaching opportunity when responding to minor behavioural concerns,” “using a classroom reward system,” and “maintaining at least a 4:1 ratio of positive to corrective feedback.”

It makes intuitive sense that teachers who believed they had a good understanding of evidence-based classroom management practices would also report higher rates of use of many of the practices. As reported earlier in this chapter, teachers who reported good
knowledge and skills in relation to prevention, and confidence in relation to managing behaviour also reported more frequent use of six EBPs. However, reporting good understanding of EBPs does not necessarily reflect actual understanding, and certainly should not be taken as indicative of actual use of practices. Previous research into teachers’ knowledge of linguistic constructs reported a discrepancy between self-rated ability and demonstrated knowledge (Stark, Snow, Eadie, & Goldfeld, 2016). A review of the knowledge and skills of Australian pre-service teachers also came to the conclusion that there was often a gap between pre-service teachers’ perceived and actual knowledge about curriculum content and pedagogy (Stephenson, 2018). It is therefore likely that the reported understanding of EBPs in the present study is not indicative of actual implementation.

**Feeling Stressed in Relation to Behaviour**

Teachers who reported feeling stressed in relation to behaviour in their classes were more likely to report less frequent use of four EBPs. These were “organising the classroom management to maximise engagement,” “providing all students with frequent opportunities to respond,” “differentiating instruction to suit the learner,” and “consistently responding to problem behaviour.” It has been reported in previous research from Australia that use of ineffective classroom management practices increases teacher stress (Clunies-Ross et al., 2008). It is therefore possible that the lower reported frequency ratings for these four practices are correlated with the higher levels of stress reported by these teachers. Stress relating to student behaviour may impact negatively on student-teacher relationships and decrease use of proactive classroom management practices (Herman et al., 2018; Reinke et al., 2015).
No differences, based on teacher perceptions of stress, were found for the remainder of the EBPs included in the survey. It would therefore be unwise to read too much into the differences found in use of four of the practices. Teaching is widely known as a stressful occupation (Spilt, Koomen, & Thijs, 2011), thus reporting high stress levels need not necessarily equate to use of ineffective classroom management practices. Recent research has shown that the ability of teachers to cope with stress is a more powerful indicator of classroom management effectiveness than simply being stressed (Herman et al., 2018).

Implementation Challenges

*RQ 5. What are the challenges to teacher use of EBPs for classroom management?*

Three types of challenges to consistent teacher use of EBPs for classroom management were identified, predominantly through the thematic analysis of interview data. The first was in relation to poor initial teacher education and lack of ongoing classroom management training and support. The second challenge related to school policies and inadequacies within school systems, such as lack of a consistent schoolwide approach, unsatisfactory administration follow up, and insufficient resourcing. The final challenge related to the difficulties associated with managing student behaviour and addressing the diverse learning needs of students.

Classroom Management Preparation, Training, and Support

Pre-service training. Results from both the survey and interviews indicated that teachers held negative views on the usefulness of pre-service teacher education for the development of skills and confidence in classroom management, with many believing that actual school experience was the only way to become an effective classroom manager. Survey
results showed that 64% of teachers did not feel that their pre-service teaching course provided them with a good grounding in classroom management. In interviews, few teachers could recall any behaviour management content in their pre-service course, while others complained that real experience dealing with common classroom challenges was lacking in pre-service training. There was a general feeling that the current system of in-school placement, under the supervision of a practising teacher, did not provide adequate opportunities to undergo the full range of experiences likely to face a beginning teacher, such as establishing a class and providing support to students with high needs. Results from this study therefore support the findings from previous Australian research which identified that pre-service teachers felt underprepared to deal with behaviour problems, and that pre-service teacher training courses lacked evidence-based behaviour management content (O’Neill & Stephenson, 2012, 2014). The findings of the present study therefore add weight to recent calls for Australian pre-service teacher training courses to include more evidence-based content, and to provide more structured opportunities for practical experience in schools (Teacher Education Ministerial Advisory Group, 2014).

**Teacher induction.** Support for beginning teachers was identified as a serious challenge by many teachers, with an evident lack of consistency in new teacher induction processes in schools. The thematic analysis of interview responses indicated that assignation of a suitable mentor appeared to be largely a matter of luck, with many beginning teachers left without support and feeling overwhelmed by the challenges of being entirely responsible for their own classes. Some teachers even felt that their experience of being mentored was detrimental to their development as effective teachers. This tended to be the case when beginning teachers received advice about classroom management from mentors with an approach to classroom management which conflicted with the beliefs of the beginning
teacher. On the other hand, access to mentors who were well selected and able to provide the right support and advice was seen as extremely helpful by the few beginning teachers in this study who had this experience of a mentoring relationship. The need for effective mentoring for beginning teachers has been previously raised in research conducted in Australia. In a qualitative study of the needs of beginning primary school teachers, new teachers spoke positively about structured mentoring programs and recognised a need for further support with behaviour management (Hudson, 2012). In the USA, concerns with the quality of support provided to beginning teachers has been the subject of at least two reports (Greenberg et al., 2014; Oliver & Reschly, 2007).

**Professional development.** While just over 50% of survey respondents said they had accessed recent professional development in classroom management, mainly delivered by their school, interview responses indicated that most teachers were dissatisfied with the availability and quality of professional development in classroom management. Most of the professional development on classroom management appeared to be delivered internally by schools, and the most frequently delivered content was the ESCM. A minority of teachers indicated that they had participated in the classroom profiling process which sometimes accompanies training in the ESCM (Jackson et al., 2013), but views were mixed on how effective this process had been. Only a handful of teachers made reference to attending PBL training.

An evident need for ongoing support with classroom management came through in teacher interviews, with many teachers noting this as an area of continual learning. Access to ongoing professional development in classroom management appeared to be arbitrary, with some teachers reporting regular professional development opportunities and others reporting limited or no access, a point noted in recent Australian educational reports (NSW
Ombudsman, 2017; Office of the Western Australian Auditor General, 2014; Queensland Department of Education, 2017). There was also little to suggest that schools had systems in place to facilitate classroom management coaching, including opportunities for observation and feedback and collegial problem solving. A salient finding that emerged in this study was that some schools were using the ESCM as a de facto classroom management process without a deep understanding of the principles of positive behaviour support, notably the focus on teaching, reinforcement, and understanding reasons behind behaviours.

**School Systems**

**School policy and procedure.** Based on the information provided by teachers in this study, there is evidence that existing school policies and procedures in relation to behaviour in secondary schools may act as a barrier to teacher implementation of proactive EBPs for classroom management. The way that teachers approach classroom management is strongly influenced by school systems, which may support or inhibit effective teacher practice. Documented school policies and procedures provide overarching guidelines for teachers, and influence the decisions that teachers make in relation to student behaviour. The daily enactment and implementation of policies and procedures serve to convey messages about how student behaviour is viewed, how teachers are expected to approach classroom management, and the responsibilities of teachers for student behaviour within the classroom. Identification of teacher concerns in relation to school policies and implementation is important because the concerns raised by teachers provide insights into the barriers which need to be overcome in order for schools to take an evidence-based approach to behaviour support, which will in turn support teacher use of EBPs for classroom management.
Two distinct findings emerged in relation to how school policies shaped teacher approaches to classroom management in the present study. The first was by leaving classroom management up to individual teachers, resulting in a variety of teacher approaches with no consistent application of evidence-based principles. The second way that school policies influenced teacher practice was by a focus on imposition of consequences for unacceptable behaviour, encouraging teachers to use a reactive approach to classroom management.

Many teachers explained their school’s approach to behaviour in terms which framed classroom management as the responsibility of the individual teacher. Teachers reported that it was left up to them to develop their own classroom management approach, and that they were expected to use their own strategies to ensure that students were settled and learning, but that they could refer students to administration when further support was needed. This approach implies that teachers have initial responsibility for the behaviour of students within their classroom, and that teachers can develop a repertoire of classroom management practices through experience, which will be sufficient to manage typical classroom behaviour problems. It would appear that many schools consider classroom management as the individual teacher’s domain and responsibility, but with an accompanying understanding that school behaviour management processes should be followed when students are unresponsive to the classroom management strategies put in place by teachers.

The second way in which school policies appeared to shape the classroom management approach used by teachers was by emphasising the use of consequences to control student behaviour. Only a small proportion of the teachers interviewed described their school’s behaviour policies and procedures in a way that indicated a proactive approach to behaviour support. Four teachers talked about having clearly communicated rules and routines in place as the basis for their school’s approach. Two of these teachers said that they
worked in a school implementing PBL and were therefore expected to teach the school expectations to students. Another two teachers said they were expected to engage students through the curriculum in order to minimise any behavioural issues. Only a minority of interview responses therefore indicated that secondary schools approach classroom management proactively, either through communication of the need to explicitly teach and acknowledge behaviour or through developing an understanding of the importance of actively engaging students in order to minimise problem behaviour. The majority of interview responses given in relation to school policies, specifically how the school expected teachers to manage behaviour in their classroom, were examples of the school’s consequence system, which typically consisted of increasing levels of sanction, culminating in the possibility of students being suspended. The predominant message conveyed was that teachers were expected to follow predetermined school processes by referring students to a higher authority when problems with student behaviour surfaced.

Comments provided by many teachers suggested that, for the majority of teachers in this study, classroom management was predominantly about the management of problem behaviour. This was despite the provision of a definition, at the outset of both the survey and the teacher interviews, conveying a broader view of classroom management to include a focus on prevention and maximisation of learning time. In interviews, teachers expanded on the ways that they attempted to control student behaviour within the classroom, for example by having students move seats, calling parents, or keeping students in during lunch for a detention. School policy in relation to student behaviour in Queensland state schools is required to be documented (Queensland Department of Education, 2018a). Evidence from the present study suggests that the school policy is often used to support delivery of disciplinary sanctions. Many teachers in the present study stated that their school policy was
for teachers to use the ESCM or their own classroom management strategies as a first response to behavioural infractions. Following this, school policy outlined a referral process and list of sanctions to be put in place when students did not respond to use of these universal classroom management strategies.

The finding that punitive practices are prevalent in secondary schools is consistent with previous research from the USA which has found that secondary teachers tend to take a reactive approach to student misbehaviour (Pas et al., 2015; Sugai et al., 2004). The present study adds detail to previous research findings by demonstrating that reactive responses to problem behaviour may be bolstered by school policies which encourage the use of aversive consequences and referral of students to a higher authority.

**Inadequacies within school systems.** Many teachers saw inconsistency in the use of school procedures as a problem impacting on their ability to manage the learning environment effectively, while a small number felt strongly that they did not receive adequate support for classroom management from school leaders, and others identified a lack of resources as hindering their ability to provide effective support to students.

In interviews, teachers referred to inconsistency when describing difficulties dealing with unknown students or responding to behaviour in unfamiliar situations when no previous relationship had been established. They also gave examples of colleagues failing to follow school procedures, thus making it more difficult for others to manage student misbehaviour. Some teachers admitted that they bypassed the expected school policies in favour of their own processes, which they believed to be more effective due to the complexity or rigidity of school procedures. The preoccupation with consistency and inconsistency in relation to classroom management is neither new nor surprising. Advice to teachers on being consistent is ubiquitous, and a small-scale qualitative study of perceptions of Australian primary school
teachers in relation to schoolwide behaviour policies found that inconsistency was a word that teachers often used when they were unhappy with the schoolwide approach to behaviour (De Nobile, London, & El Baba, 2015). The nature of the secondary setting, with every student having a number of different teachers in the course of a typical day, is likely to increase teacher awareness of the need for consistency and may account for the frequent mentions of this word in both survey and interview responses.

The second inadequacy within school systems which emerged as a classroom management challenge for teachers was a perceived lack of support from school leaders for teacher implementation of classroom management processes. Several teachers voiced frustration at what they believed was a lack of follow-through from school administrators. To some of the teachers interviewed it felt like they had completed their end of the bargain by using a range of strategies to manage student behaviour, as outlined in the school policy. When behaviour did not improve, teachers then wanted back-up from administration in the form of imposition of more serious penalties for students. However, interviews indicated that teachers sometimes felt that responsibility got pushed back on to them as the teacher. The following comment from Hannah sums up this sentiment:

I don’t think teachers should be sending kids to detention rooms all the time. But I also don’t think teachers should be having to sit in their rooms in detention every lesson because they have to keep following up kids that just constantly aren’t doing the right thing and no one will take it any further. It’s always, what have you done?

Such comments betray a tension existing in schools between a belief that classroom management is the responsibility of the teacher, and the existence of school procedures which require teachers to refer students with persistent behavioural problems to a higher authority. A divide may develop when teachers perceive they have done everything possible to manage student behaviour but have not received administration back-up, or when
administrators believe that teachers are not managing their classroom effectively. When teachers feel they have been let down by the school process, this may lead to increased teacher stress and diminished self-efficacy. Perceived lack of administrator support for teachers has been linked to teacher burnout (Zabel & Zabel, 2002) and, as previously discussed, implementation of EBPs for classroom management is inversely related to teacher stress and self-efficacy (Reinke et al., 2015).

There is also some evidence from the present study that previously identified barriers such as availability of time and resources may impact negatively on teacher implementation of EBPs (McGoey et al., 2014). Adequate resourcing may be a particular challenge for schools in rural and remote areas and schools servicing low socio-economic areas. Further research is warranted to tease out the pervasiveness of such concerns and their impact on schools.

**Student Behaviour and Learning Needs**

The third challenge facing teachers with classroom management related to the difficulties facing teachers with managing student behaviour and teaching the academic curriculum to students with diverse needs.

**Student behaviour.** The teacher interviews conducted for the present study indicated that the two biggest concerns for teachers in relation to student behaviour were disengagement from learning and disrespect. Disengagement emerged as a major frustration for many teachers, typified by the following quote from experienced teacher, Mary:

They’re just, they’re so apathetic. You find that they just don’t want to engage. They’re lazy and, yeah, it’s really hard to get, the minute you ask them to think, they’ve got to do it, or something that involves them doing the work and them thinking, they quickly shut down. And it’s so hard.
The other major concern for the interviewed teachers was behaviour characterised as disrespectful, such as arguing with the teacher, refusing to follow teacher instructions, or swearing directed at the teacher. Teacher concerns about disrespectful behaviour may in part reflect the reality in secondary schools of working with adolescent learners, who may be more likely to push boundaries and question authority as part of normal teenage development. There may also be a link between behaviours considered by teachers to be disrespectful and prevailing attitudes in secondary schools, reflected in behaviour policies that focus on compliance.

Recent Australian educational reports have underlined the importance of student engagement for improved learning outcomes (Australian Institute for Teaching and School Leadership, 2013; Goss et al., 2017), and the evidence from the present study suggests that secondary teachers are well aware of this importance. The behaviour concerns identified by teachers in the present study largely concur with previous Australian research findings that the most common behavioural issues experienced by teachers relate to student disengagement and low-level disruption (Beaman et al., 2007; Sullivan et al., 2014). The present study also supports the findings of previous Australian research by reporting that more serious antisocial behaviours such as drug taking, violence, and bullying, while perceived as worrying, are less prevalent than disengaged, disruptive, and disrespectful behaviours (Beaman et al., 2007; Crawshaw, 2015; Sullivan et al., 2014).

The present study therefore adds to the existing evidence that student behaviour is an ongoing concern for teachers (Angus et al., 2009; Office of the Western Australian Auditor General, 2014). It also corroborates the argument put forward by previous researchers that some teachers see problem behaviour as something under the sole control of the individual student, failing to prioritise the role of teachers in setting up an environment conducive to
student success (Johansen et al., 2011; Sullivan et al., 2014). The previous comment from Mary, and the following one from Angela about the behaviour of Year 7 students, convey a common belief that students should be able to control their behaviour without the need for any accompanying action from teachers:

I kind of get a little bit annoyed with the way that Year 7s are very mollycoddled here and babied. I kind of think okay, I don’t remember getting separate classrooms or special treatment in any way. It was you’re in high school now and you’re going to deal with it.

Learning Needs. The other daily challenge that appeared to preoccupy teachers in this study was related to meeting the learning needs of students. While lack of student engagement and disrespect in classrooms were the main behaviours which teachers found challenging, there was also widespread concern voiced in interviews about the numbers of students needing additional support due to learning or social-emotional needs. Teachers also felt ill-equipped to deal with behaviours influenced by mental health or disability. Teachers expressed views indicating an understanding of the need to have an appropriate and relevant curriculum in order to engage students and minimise behavioural concerns. Many of the teachers surveyed and interviewed provided comments demonstrating recognition of the link between learning and behaviour. In the survey, around 20% of teachers indicated they used an approach to classroom management which relied on effective instruction in order to engage students and minimise behavioural problems. Several teachers also made comments in interviews showing that they understood that behaviour concerns were often associated with learning difficulties. These teachers understood that actively engaging students through the curriculum was an effective way to prevent problem behaviour. They talked about the importance of varying learning activities and were aware of the need to differentiate instruction. However, some teachers felt unable, or poorly prepared, to provide appropriate
instruction to the diverse range of learners in each class. For example, one beginning teacher felt she lacked the skills to differentiate instruction effectively, raising the concern that it was difficult to ask for help because there was an assumption in schools that teachers should know how to differentiate.

Almost a quarter of teachers interviewed were concerned that many students lacked the ability to do the set work. The overall impression from the teacher interviews was that many teachers were overwhelmed with the complexity of teaching students with diverse needs. In some cases, teachers blamed the inflexibility of the curriculum, stating that an inability to provide more tailored learning activities was a major factor in student misbehaviour. Other teachers felt it was impossible to differentiate instruction effectively, given the numbers of students requiring additional support in their classes. Such comments might be due to a lack of explicit professional development, particularly for secondary schools, demonstrating what differentiation actually looks like in classrooms. It may be that Queensland secondary school teachers are still developing an understanding of what differentiation looks like in practice. It is also possible that some teachers do not feel that differentiating instruction is necessary for every class.

Findings from the present study suggest a need to improve teacher ability to provide differentiated instruction and align with recommendations made in an independent review into the school experiences of students with disability in Queensland state schools (Deloitte Access Economics, 2017). The Deloitte review reported that many teachers lacked the capability to differentiate effectively and called for better support and training for teachers in how to differentiate instruction. Evidence from the present study supports this recommendation, suggesting that a lack of practical understanding of how to differentiate
teaching and learning may underlie concerns raised by teachers about lack of time or curriculum inflexibility.

**Conclusion**

This chapter has synthesised the results from each phase of the research, drawing together the key findings for each of the research questions. Findings have been discussed and explanations and interpretations have been offered. Results have been related to previous research in the field, showing similarities and discrepancies between findings. The final chapter begins with a summary of findings and an acknowledgement of study limitations. Implications for policy, practice, and future research are then discussed. Finally, the contributions of this research are presented.
CHAPTER 7: CONCLUSIONS AND IMPLICATIONS

Overview

The aim of this research was to investigate the classroom management practices reported as being used most frequently by Queensland state secondary school teachers, the extent of reported use of 14 EBPs, and the challenges to an evidence-based approach to classroom management. This mixed-methods inquiry was, as far as can be established at the time of writing, the first Australian study of teacher-reported implementation of EBPs for classroom management. Previous Australian research (R. Lewis et al., 2008, 2011; Roache & Lewis, 2011b; Sullivan et al., 2014) had looked at aspects of classroom management, but no studies had focused predominantly on proactive practices, nor sought to investigate whether the large-scale adoption of PBL by a state education jurisdiction had produced any influence on reported teacher practice.

Phase 1 of the research used a survey to determine reported rates of use of 14 EBPs for classroom management. In addition, teachers were asked two open-ended questions about their most frequently used practices as a deliberate strategy to determine which classroom management practices were at the forefront of teachers’ minds when they were asked to provide their own examples of day-to-day practice (Peters, 2012). In Phase 2 of the research, 26 semi-structured interviews were conducted with a sub-group of survey respondents to capture more detailed responses and beliefs in relation to classroom management. Interviews afforded the opportunity to delve deeper into some of the challenges facing teachers with using a proactive, research-informed approach to classroom management.
This chapter provides a summary of findings and considers the limitations of the present study. Implications for policy, practice, and future research are explained. Finally, the contribution of this research is outlined.

**Summary of Findings**

In Chapter 1 the importance of effective classroom management to positive student learning outcomes was described. Evidence from Australia was presented, showing that the main problem behaviours encountered by teachers were low-level disruptions and student disengagement from learning, and that reactive responses to student behaviour were prevalent despite the adoption by many Australian jurisdictions of PBL as a framework for a whole-school, proactive approach to behaviour support. A lack of initial and ongoing classroom management training and support for teachers was identified as contributing to the limited adoption of a proactive classroom management approach in schools.

Chapter 2 introduced the theoretical underpinnings for this research by explaining the alignment between SWPBS as a whole-school framework for behaviour support and the instructional and preventative classroom management practices which were a focus of the current research. An overview of the research on effective classroom management followed, including a summary of the evidence base for the 14 EBPs included in the present study. The latest research into implementation of EBPs for classroom management was then outlined, showing that many EBPs are underused, but that implementation can be improved by provision of professional development and coaching. Chapter 2 concluded by using the lens of implementation science to discuss the research-to-practice gap.

Chapter 3 set out the research design and methodology and provided a rationale for selection of the chosen approach. Use of a mixed-methods methodology provided
“complementarity” (Bryman, 2006, p. 107) through the enhancement of information obtained by either a quantitative or qualitative methodology alone (Creswell, 2012). By combining both quantitative and qualitative methods, a more complete understanding of secondary school teacher beliefs and practices in relation to classroom management was gained.

Chapters 4 and 5 presented the results from the quantitative and qualitative phases of the research, while Chapter 6 synthesised these results and provided commentary on the findings and their relationship with previous research. A summary of results follows.

**RQ 1. Which classroom management practices do Queensland secondary school teachers report using frequently?**

The main classroom management practices which teachers reported using were (a) establishing expectations, routines, and boundaries; (b) strategies contained in the ESCM professional development package; and (c) delivering sanctions.

**RQ 2. To what extent do these teachers perceive that they use 14 EBPs for classroom management?**

Survey results indicated that the majority of participating teachers believed that they used eight of the 14 EBPs quite frequently, two very frequently, and three less frequently. Teachers reported very frequent use of “actively monitoring the classroom” and “giving clear instructions for activities.” Lower reported rates of use were evident for three EBPs: (a) “establishing, reviewing, and reteaching a small number of positively stated classroom rules,” (b) “using a classroom reward system,” and (c) “maintaining at least a 4:1 ratio of positive to corrective feedback.”
RQ 3. Do teachers (a) working in schools using the PBL framework, or (b) perceiving that they have good understanding of PBL principles, report higher levels of use of EBPs for classroom management?

For the majority of the EBPs included in the survey there was little difference in reported rates of use based on PBL familiarity. However, teachers who were working in schools implementing PBL, or who reported good understanding of PBL principles, reported “using a classroom reward system” and “maintaining at least a 4:1 ratio of positive to corrective feedback” more frequently than teachers not working in PBL schools, or not having a good understanding of PBL principles.

RQ 4. What is the impact on perceived use of EBPs for classroom management of (a) teacher demographics, such as gender, years of teaching experience, and subject areas taught, (b) having access to professional development in classroom management, and (c) confidence and concerns with classroom management?

No firm conclusions could be drawn about associations between teacher characteristics or experiences and use of EBPs. There was some suggestion that (a) reporting a good understanding of EBPs for classroom management, (b) attending professional development on classroom management, (c) belief in having the knowledge and skills to prevent problem behaviour, and (d) reporting confidence in managing problem behaviour might increase reported frequency of use of some EBPs, while feeling stressed in relation to behaviour might impact negatively on the use of some practices.

RQ 5. What are the challenges to teacher use of EBPs for classroom management?

Challenges which impeded teachers’ ability to consistently use predominantly proactive EBPs for classroom management emerged in the thematic analysis of the data gathered in 26 phone interviews with Queensland secondary school teachers. It became evident that few teachers had had access to comprehensive pre-service training in a research-
informed approach to classroom management and that school induction processes for beginning teachers were often lacking or haphazard. It also became clear that teachers had limited access to professional development or coaching in classroom management apart from exposure to the ESCM, often provided in-house by schools.

Conversation with teachers also pointed to inconsistencies and inflexibility in the enactment of school policies and procedures for student behaviour, with many teachers frustrated by what they perceived as a lack of support from school administrators. It became clear that many schools left classroom management up to individual teachers and expected teachers to follow school behaviour management processes to the letter. Teachers also voiced frustration over inadequate resourcing, student behaviour problems, and an inability to meet the learning needs of students.

**Study Limitations**

Throughout the planning and conduct of this research a number of checks and balances were put into place to strengthen study reliability and validity. First and foremost, the mixed-methods research design aimed to capitalise on the strengths of both quantitative and qualitative approaches in order to minimise any biases attached to using solely quantitative or qualitative methodology (Bryman, 2006; Creswell, 2012). Relying on survey data alone may result in arriving at a one-dimensional, or partial, picture of practice, while gaining data from a small number of interviews risks missing some of the larger patterns that may be identified in survey research (Kumar, 2014). The ability to add detail to survey responses during phone interviews, then to synthesise the key messages, held the advantage of providing a more complete and balanced depiction of secondary teacher classroom management experiences and practices.
The reliability of the survey instrument used in the research was improved by having an expert group provide feedback on wording and examples. Both the survey and the interview were also piloted with a small group of practising secondary school teachers in order to ensure that meanings were clear and that questions and prompts elicited relevant information. Accuracy of descriptive data was ensured by double checking raw data and running manual checks, as described in Chapter 3. A Bayesian data analysis was performed on the survey results using binomial and ordinal probit models. As there was little prior knowledge in the field, non-informative priors were used and results were obtained in the form of plausibility estimates. Models were checked using standard diagnostic tests and graphical checks.

Despite these measures a number of limitations remain, which should be borne in mind when interpreting results. The main limitations of this study relate to (a) self-reported data, (b) sampling bias, (c) structure and wording of survey and interview questions, and (d) the coding process.

This research relied on self-reported data provided by teachers in survey responses and in phone interviews. Self-report was an efficient way for the researcher to collect data from a large number of participants but may possibly have resulted in some inaccuracies in the representation of teacher practice. Some studies have found that practitioners tend to report inflated knowledge and use of practices (Hartman & Nelson, 1992; Housego, 1990) although self-reported data have been shown to be accurate under certain conditions, such as when specific behaviours or practices are being reported on (Haeffel & Howard, 2010; Newfield, 1980). In the current study, teachers may have reported more frequent use of EBPs for classroom management than may be true in practice, as discussed in Chapter 6. Nevertheless, the results suggest that teachers did discriminate in their perceived use of
different practices, with lower frequency ratings for teaching expectations and providing reinforcement through rewards or acknowledgment.

While self-report bias is often cited as a limitation of survey research (Donaldson & Grant-Vallone, 2002), there are also limitations in observational research. Teachers may be more likely to increase the use of certain practices in the presence of an observer while multiple observations may be needed to collect enough data for results to be reliable (Elliott, Frey, & Davies, 2015). Despite the drawbacks of self-report, the insights gained through this study provide an important starting-point for the design of professional development and support activities. An understanding of teacher perceptions in relation to their practice is important because teachers are unlikely to embrace professional development opportunities that merely focus on the technical aspects of using EBPs without acknowledgement of existing knowledge and skills and the challenges facing teachers in schools.

A second limitation of this research was possible sampling bias. Government policy dictated that a link to the survey could not be sent directly to teachers but must be addressed to the principal. While an email inviting teacher participation was sent to all state secondary schools in the state, it is unknown whether all principals passed on the link to teachers, making it impossible to guarantee that the sample was representative of the wider secondary teacher population. It is possible that the sample consisted of more teachers with a strong interest in student behaviour, perhaps resulting in a higher representation of teachers feeling confident with classroom management. Another example of possible sampling bias relates to the majority of respondents being based in the south-east corner of the state, meaning that the views of teachers in rural and remote locations may be under-represented or missing from study findings. Likewise, no information on cultural background of respondents or cultural
make-up of schools was collected, meaning that no conclusions can be drawn in relation to the application of study findings for particular groups or communities.

There were also important limitations in aspects of the wording and structuring of the research instruments. Part 3 of the survey used a 5-point rating scale of never, occasionally, sometimes, fairly often, and always. The large number of teachers selecting always or fairly often for most practices may be an indication that the labels used were not ideal for picking up subtle differences in teacher perceived use of practices. There may also have been some ambiguity in the wording of the labels (Krosnick & Fabrigar, 1997). Teachers may have had difficulty distinguishing between occasionally and sometimes, although the layout may have provided some clues by indicating the increasing frequency from never to always. The collapsing of the survey scales in the regression analysis compensated somewhat for these limitations.

The ordering of interview questions may also have been a possible limitation. The first question in the phone interviews asked teachers to describe how their school expected them to manage student behaviour in their classroom. Even though a broad, proactive definition of classroom management had been provided just prior, having this as the first question may have influenced subsequent responses. It is possible that teachers may have placed more emphasis on responding to student misbehaviour as a result of the placement and wording of the initial question.

The final limitation relates to the coding process used for the free-text survey responses and the thematic analysis of interviews. Although a transparent and structured process was used (see description in Chapter 3), the absence of any independent cross-checking of the coding process meant that identification of the final themes relied mainly on
the interpretation of the researcher alone, although consultation with supervisors was undertaken to help mitigate this limitation.

Implications

A number of implications for policy, practice, and future research have been alluded to in the discussion of the key findings from this research. These implications pertain mainly to the Queensland context, given that this research sought to examine the experiences and practices of Queensland secondary school teachers, and to investigate how the local cultural context supports or hinders the use of EBPs for classroom management. Nevertheless, findings from this research also have broader implications for the work being undertaken nationally and internationally on closing the research-to-practice gap in education.

Implications for Policy

The views of the teachers in this study were considered from the systems perspective of implementation science, which takes into account the influence of the organisational culture on teacher practice. This perspective recognises the importance of state policies and the role of implementation supports in shaping teacher practice. While policies alone are insufficient to change practice (B. G. Cook & Cook, 2016), the absence of clear guidelines or a coherent rhetoric from policy-makers contributes to inconsistency of practice at the grass-roots level (Fixsen et al., 2005). This conflict was shown in the current study by the evident tension existing between the discourse of “behaviour management” with use of traditional disciplinary practices, and an acceptance of “positive behaviour support” with an emphasis on proactive classroom management practices based on teaching and reinforcement, accompanied by an understanding of the underlying reasons for student behaviour. Survey
findings and views expressed in teacher interviews indicated a heavy reliance in Queensland secondary schools on practices which aim to manage and control student behaviour. Although there was some recognition of the need to build positive relationships with students, provide engaging curriculum, and deal with behavioural issues discreetly and individually, the current emphasis on disciplinary actions for problem behaviours outlined in state behaviour policies seems to be steering schools into taking a more punitive approach to student behaviour, despite the investment in PBL at the state and regional levels. The common expectation in schools that teachers should have the necessary classroom management skills to deal with most behavioural challenges, coupled with the prescriptive nature of some school policies which require teachers to adhere to a predetermined list of consequences and to emphasise a “get tough” approach to problem behaviour, would appear to be working against an evidence-based approach to behaviour support, despite the widespread adoption of PBL.

There appears to be limited understanding of the principles of PBL in schools, with only a minority of teachers in this study recognising the need to explicitly teach and acknowledge expected behaviours, or to consider underlying functions of behaviour when correcting behavioural errors. Ultimately, limited understanding of PBL principles has contributed to an overemphasis on simply stating expectations and ensuring consistency of consequences, even in schools claiming to be implementing PBL. The fundamental principles of ABA, which underpin whole-school PBL and explain the relationship between the school environment and problem behaviour, do not appear to be well understood, with a tendency to locate the problem in the child or the home situation (Sullivan et al., 2014). A failure to question underlying assumptions about student behaviour, or to acknowledge the role of adults in supporting positive behaviour in schools, would appear to have resulted in the adoption of the external trappings of PBL, such as consistency of rules and boundaries,
without an accompanying change in the way that behaviour is viewed, or an understanding of the need for a proactive approach to classroom management.

To all intents and purposes, the PBL framework has merely been bolted on to existing school policies and procedures, resulting in the maintenance of traditional disciplinary actions despite promotion of the practices which align with positive behaviour support. Although many schools have embraced PBL on paper, this does not appear to have significantly changed school cultures. Currently, in Queensland, PBL schools are just as likely as non-PBL schools to suspend students for disciplinary infractions (Deloitte Access Economics, 2017). These circumstances can in part be accounted for by existing school policies and processes which undermine the enactment of positive behaviour support practices due to an overemphasis on consequences for problem behaviour, despite recognition in policy and practice of the importance of positive teacher-student relationships.

Without clear implementation guidelines for how to implement positive behaviour support in classrooms, supported by policies and rhetoric at the state and regional levels, schools have been left to work out for themselves how best to support teachers with classroom management. There is therefore clearly a priority for state behaviour policies and guidelines to be revised and aligned to put a clearer emphasis on the use of a proactive approach which places disciplinary consequences in the wider context of behavioural supports. A stronger message about the use of positive behaviour support could help reduce the reliance in schools on punitive consequences. This message should also permeate across all policy areas, including curriculum, in order to communicate that student learning, well-being, and behaviour are interrelated, and that student outcomes will only be maximised when all of these aspects are supported in an integrated fashion.
Policy-makers can also support teacher use of EBPs by developing and disseminating practice guides which provide digestible information on research-informed practices, and practical advice and guidelines on implementation for teachers. Calls for such guidelines, in the context of addressing student disengagement in Australian schools, have been made recently (Goss et al., 2017). Such guidelines could provide clarity around the classroom management practices supported by research and would therefore assist schools in adopting an evidence-based approach, although caution must be taken to avoid a narrow focus on the technical aspects of teacher practice without simultaneously addressing issues related to school culture and the role of adults in supporting student behaviour.

A further implication for policy is the evident need for the content of initial teacher education courses to be overhauled. In Chapter 2, the lack of evidence-based content in Australian pre-service teaching courses was discussed (O'Neill & Stephenson, 2012, 2014) and was apparent in the findings of the present research. Few teachers in the current study felt that new teachers were adequately prepared for the day-to-day challenges of managing their own classroom, with many believing that more time spent in the classroom during practicum, with more opportunities to experience common challenges, was needed to build confidence and skills.

There is also work to be done in improving the induction supports provided to beginning teachers, including the translation of existing guidelines for teacher induction into practice in schools (Australian Institute for Teaching and School Leadership, 2016). Policy-makers must work with schools to ensure that consistent induction processes are put into place, and sufficient attention is paid to choosing mentors with the skills and attributes needed to support beginning teachers. This research has revealed an obvious inadequacy in teacher induction processes in many schools. Not only is there a need for better selection and
preparation of mentors, but there is also a need to allocate a reasonable amount of time for mentors to engage productively with mentees. Several teachers in this study voiced their willingness to support beginning teachers, but did not have any capacity within current work demands to provide more than the occasional emotional support.

Implications for Practice

Within the Queensland educational system there are notable barriers to effecting change in teacher practice, not least due to the devolved nature of the state schooling system and the complexities associated with providing well-targeted, fit-for-purpose support to large numbers of teachers in many locations, with varying degrees of experience, understanding, and skills. Current implementation supports in Queensland for adoption of positive behaviour support practices are stretched, with PBL regional coordinators expected to provide training, technical assistance, and coaching support to almost half of state schools (Deloitte Access Economics, 2007; Hepburn, 2019). Ongoing support for teachers in building awareness of EBPs and how to implement these successfully in classrooms is needed to bridge the research-to-practice gap. Teacher mentoring and access to coaching have been shown to increase use of EBPs and to build teacher confidence in using research-informed practices (e.g., Gage, MacSuga-Gage, et al., 2017; Reinke et al., 2014; Simonsen, Myers, & DeLuca, 2010; Stormont et al., 2015). Findings from this research suggest a need to scale up the support available to teachers by the creation of implementation teams to provide the professional development and coaching support needed for initiatives to take hold (Fixsen, Blase, Metz, & Van Dyke, 2013).

There are also implications relating to the content and delivery of ongoing professional development for classroom management. It became very apparent that schools
in Queensland have an overreliance on the ESCM training package, pointing to a need for a broader range of professional development options to be made available in order to better equip teachers in the use of practices identified in the research as having the highest probability of reducing behavioural issues and increasing student engagement. This dependency on one particular professional development resource is worrying for a number of reasons. First, the ESCM professional development does not make clear the importance of taking an instructional approach to behaviour, meaning that the explicit teaching, modelling, and provision of frequent practice opportunities for expected behaviours may be neglected. Second, the majority of the strategies recommended in the ESCM are focused on teacher responses to problem behaviour, which may overemphasise teacher control and student compliance. Third, a recognition of the reciprocal relationship between academic and social outcomes is lacking, with strategies which aim to increase student engagement noticeably missing from the package. Fourth, the heavy reliance on ESCM may lull teachers into a false sense of thinking that they know all they need to know about classroom management. Finally, and arguably most importantly, without accompanying awareness of the underlying factors which may impact on student behaviour, teachers may attempt to apply the ESCM strategies in an attempt to control student behaviour, without due consideration for the reasons for the behaviour, the quality of instruction, or the classroom environment.

The findings from this research suggest the need for a more strategic, precise, and intentional use of classroom management practices; therefore professional development for secondary school teachers should aim to increase teacher understanding of the principles of positive behaviour support, including an understanding of the underlying functions of behaviour and the importance of classroom ecology. Without an understanding of these
principles, teachers will be unable to identify which classroom management practices to use, under which circumstances, and with which students (Simonsen & Myers, 2015).

Of equal importance to the content of professional development is the way in which it is offered. Teacher beliefs, identified needs, existing knowledge, and competencies need to be considered in the development and targeting of professional development if teachers are to transfer their learning into the classroom. Taking a multi-tiered approach to professional development provision, as recommended recently by scholars in the field (Sanetti & Collier-Meek, 2015; Simonsen et al., 2014), is a sensible and efficient approach which recognises that one size does not fit all when it comes to teacher professional development.

Professional development tailored for secondary school teachers, which recognises and respects some of the unique challenges facing teachers in the secondary setting, such as the limited time available with each class, pressure to meet syllabus and assessment requirements, and the needs of adolescent learners, is more likely to be valued and accepted by teachers. Teachers in this study overwhelmingly considered themselves to be confident classroom managers, despite also identifying many challenges associated with effective classroom management, suggesting that professional development providers need to appreciate the complexities and subtleties inherent in teachers’ attitudes towards professional learning. The experience and existing strengths of teachers need to be harnessed, recognising that teachers are not empty receptacles waiting to be filled up with the latest research evidence. Taking teacher experience and strengths into account does not preclude challenging assumptions about student behaviour, prompting reflection on use of current strategies, or encouraging adoption of improved practices -- all important functions of effective professional development. However, failure of professional development providers and researchers to recognise and build on teacher experience will almost certainly alienate
teachers, and fuel the mistrust of research and evidence-based practice voiced by many teachers in this study. Comments from participating teachers displayed scepticism about the way research is used in schools, with a prevalent view that classroom management is best learned from experience and from listening to the advice of colleagues.

Finally, it became evident from listening to the teachers in this study that opportunities to receive any kind of support for classroom management from school leaders were extremely rare. Few teachers had had access to coaching support, or opportunities for observation and feedback. Several teachers felt that they had no-one to go to when they needed help, apart from colleagues who were limited in the support they could provide due to their own teaching demands. Some teachers were clearly distressed by having witnessed colleagues struggling with classroom management and feeling powerless to provide help. Work therefore needs to be done in building better systems of support for classroom teachers in schools. Developing a better understanding of the principles of positive behaviour support among school leaders should be an important first step in enhancing the support available to teachers in adopting proactive practices.

Implications for Future Research

This research has identified the practices that Queensland secondary teachers report using most frequently and some of the influences on their daily practice. Subsequent studies might examine differences in reported use of practices and actual use by conducting classroom observations. An obvious next step would be to conduct an intervention study to establish which classroom management practices are associated with improved student outcomes. The selection of the practices included in Part 3 of the survey used in this research was based on empirical evidence from numerous studies, and alignment with the principles
of effective classroom management identified in a rigorous literature review (Simonsen et al., 2008). Despite the widespread acceptance that these practices qualify as EBPs for classroom management, research to date has not focused on (a) the optimum rate of use for each practice, (b) the ways that classroom teachers combine use of these practices in day-to-day teaching, and (c) whether consistent use of each of these practices results in improved student outcomes in secondary schools. Bearing in mind the contentious issue of using rewards with secondary school students, future experimental research could look at specific outcomes associated with using, or not using, tangible rewards in secondary classrooms. For instance, future studies could compare the outcomes of using tangible rewards and positive verbal feedback, and provision of positive verbal feedback alone.

Future research is also warranted into the implementation and outcomes of PBL in Australian jurisdictions. Local research is needed, first to establish whether PBL is being implemented as intended, and next to determine any outcomes associated with effective implementation. Although SWPBS has been rebadged as PBL in some Australian states, in essence PBL contains the same implementation features as outlined in the Implementation Blueprint (OSEP Technical Assistance Center on Positive Behavioral Interventions and Support, 2015). Implementation support is provided to schools by state education departments, to varying degrees. In the USA, researchers have been able to use centrally collected and freely available data on behaviour referrals and fidelity of implementation, facilitating research into the relationships between effective SWPBS implementation and improved outcomes. Publication of findings has helped to maintain a focus on integrity of implementation and has provided states and schools with useful guidelines on the factors which support implementation (e.g., Mathews, McIntosh, Frank, & May, 2014; McIntosh et al., 2013). A similar research methodology in Australia would require the release of
implementation and outcomes data by state education jurisdictions and would help to identify how well PBL is being implemented here. A deeper understanding of the supports and challenges to effective implementation in this country would help to inform what can be done in schools to close the research-to-practice gap evident in some of the findings reported here.

In addition, future Australian research should focus on whether use of the PBL framework in Australian schools is impacting positively on student and staff outcomes. There is strong research evidence from the USA that implementation of SWPBS results in fewer behavioural referrals, and increased staff and student well-being (e.g., Bradshaw et al., 2010; Chitiyo et al., 2012; Horner et al., 2010; Kelm & McIntosh, 2012; Luiselli et al., 2005). To date, despite the investment in PBL implementation by a number of educational jurisdictions in Australia, no research has been conducted seeking to assess whether PBL implementation has resulted in similar outcomes here.

**Contributions of this Study**

This research focused on the most commonly used classroom management practices reported by Queensland state secondary school teachers and their perceived use of EBPs for classroom management. It was the first Australian study to investigate whether widespread adoption of PBL in a state jurisdiction has impacted in any way on the classroom management approach taken by teachers. Findings from this extensive mixed-methods inquiry have been scrutinised and considered in relation to previous research contributions in the field, and current concerns about classroom management practices in schools. Two main contributions to the literature have been identified: (a) increased understanding of the classroom management practices used by secondary school teachers and the challenges to an evidence-
based approach, and (b) initial indications about the impacts of widespread adoption of PBL on teacher practice.

**Classroom Management in Secondary Schools**

Results reported in this study confirm findings from previous Australian research that reactive practices are common in schools, and that schools tend to take a controlling approach to student behaviour (Sullivan et al., 2014). Moreover, this study extends previous research, which has predominantly focused on the strategies used by teachers to respond to problem behaviour (Roache & Lewis, 2011b; Sullivan et al., 2014), by reporting on the practices teachers describe using to prevent problem behaviour and maximise teaching and learning time. The combination of survey open-ended questions and rating scales followed up by semi-structured interviews allowed a more rounded picture of teacher practice to emerge, as well as indicating how organisational culture and school systems influence teacher practice. The synthesis of survey and interview findings revealed tensions between an evidence-based approach to classroom management based on the principles of PBL, on one hand, and traditional, predominantly punitive approaches to student discipline on the other.

Furthermore, the present study has extended previous research by determining that many secondary teachers are aware of the importance of building positive relationships with students and understand that failure to provide differentiated instruction leads to increased problem behaviours. There therefore appears to be a growing awareness among secondary school teachers of the link between learning and behaviour and the need for adaptations to the curriculum in order to engage students and meet their diverse learning needs. The emerging awareness in secondary schools of the underlying reasons for student behaviour, and an appreciation of the role that teachers can play in supporting student learning, are new
themes not identified in previous research. Taken together, these findings suggest that secondary school teachers are open to learning more about what they can do to support student learning and behaviour. Hence an optimistic view can be taken of positive approaches taking root in schools, contingent on accompanying systems changes being undertaken and appropriate support being provided to secondary teachers. Professional development which is tailored according to need, and which respects existing expertise, is a promising way forward, with the potential to make a sustainable difference to teacher practice in secondary schools.

**PBL and Teacher Practice**

A number of studies, predominantly from the USA, have charted the outcomes of SWPBS implementation in schools concluding that, when implemented as intended, SWPBS results in more positive school climates, improved teacher and student well-being, increased time on task, and reductions in behaviour referrals. More recently, SWPBS research in the USA has turned to implementation of SWPBS in the classroom. A number of studies have investigated reported teacher use of EBPs for classroom management, while others have sought to measure the impact of professional development and coaching on teacher use of evidence-based classroom management practices, such as use of behaviour-specific praise.

The present study is one of only a few from Australia to look at aspects of PBL implementation here, and the first to investigate whether implementation of PBL at the whole-school level has impacted on the classroom management practices used by secondary school teachers. This research therefore makes an important contribution to the field, given the specific nature of the secondary setting, and the higher prevalence of reactive practices such as suspension and exclusion in secondary schools (Pas et al., 2015; Sugai et al., 2004).
By comparing responses from teachers working in PBL schools, or claiming good understanding of PBL principles, with responses from those not in PBL schools, or without a strong understanding of PBL, some initial patterns of teacher practice have been identified. This study provides tentative evidence that implementation of PBL in Queensland has impacted on some of the classroom management practices used by teachers. More teachers with a good understanding of PBL principles, or teaching in schools implementing PBL, reported use of classroom rewards and the maintenance and tracking of a 4:1 ratio of positive acknowledgement to correction. This suggests that teacher practice may be influenced by adopting PBL as a schoolwide framework. It is possible that messages about the importance of positive reinforcement, and the development of schoolwide reinforcement systems in schools adopting PBL, may have increased teacher awareness about use of classroom rewards and provision of acknowledgement, despite the misgivings common in secondary school settings in relation to rewarding students. Heightened awareness is, of course, only the first step in actual implementation, but an increase in awareness suggest the potential exists to influence teacher practice through dissemination of key messages, provided that systems support, responsive to the needs of secondary schools, is also put into place.

Concluding Statement

The emergence of implementation science in the last two decades has resulted in the development of guidelines for effective implementation across a number of disciplines, yet the transfer of evidence-based practices to the classroom remains a challenge facing educational systems worldwide. This research has enabled some of the complexities underlying teacher selection of classroom management practices to be unravelled and valuable insights into the barriers to taking a preventative evidence-based approach to
classroom management to be gained. The role played by school systems in shaping teacher practice has been highlighted, pointing to a need to reconceptualise the way student behaviour is viewed in secondary schools and to recognise the constructive role that teacher practice plays in creating positive and supportive learning environments.

Yet, despite the many challenges facing secondary schools in achieving consistent implementation of EBPs for classroom management, findings from this research suggest we should take an optimistic view of the capacity for future school improvement. The clear signs that secondary school teachers value positive teacher-student relationships, recognise the value of engaging students, and are motivated to respond to diverse learning needs in their classrooms are all indications of the potential for positive practices to take hold in secondary schools. It is now incumbent on policy-makers and educational leaders to provide schools with the tools and support which will empower teachers to adopt an evidence-based approach to classroom management.
REFERENCES


qualified-maths-and-science-teachers-union-says/news-story/9d66d5cb75b2fc886695a206c7530436


APPENDICES

Appendix A. Informed Consent Package and Recruitment Scripts

Evidence-based Practices for Classroom Management in Queensland High Schools

Griffith University Reference No. 2015/894

INFORMATION SHEET/CONSENT PACKAGE

<table>
<thead>
<tr>
<th>Student Investigator</th>
<th>Chief Investigators</th>
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<tr>
<td>Student Name: Lorna Hepburn</td>
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<td>Email: <a href="mailto:h.klieve@griffith.edu.au">h.klieve@griffith.edu.au</a></td>
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Why is the research being conducted?

The research is being conducted by online survey with a sample of Queensland secondary school teachers in order to describe teacher use of evidence-based classroom management practices. The practices identified in the survey come from a review of the literature on effective classroom management. Teachers will be asked to rate the extent to which they implement each practice.

Griffith University is involved in this research by the provision of research supervisors who monitor and assist the researcher in this project. The project is distributed via Griffith University’s LimeSurvey program with data being stored at the Griffith Research Centre. This research will form part of a doctoral thesis.

What you will be asked to do

You are invited to participate in an online survey that contains 26 items. These items consist of mainly multiple choice and some open-ended questions. The survey should take around 15 minutes to complete. The survey does not have to be completed at the one time, as surveys can
be saved and finished at a later time. You also have an option of agreeing to participate in a follow-up telephone interview with the principal researcher.

The basis by which participants will be selected or screened

The participants consist of secondary school teachers who are currently registered with the Queensland College of Teachers (QCT) and who are currently teaching in a state secondary school in Queensland. Potential participants will be invited by email, by direct invitation or by a link provided by the QCT to take part in an online survey. An Information Sheet/Informed Consent Package will be attached to the initial email. Participants consist of a sample of teachers who are interested in a survey investigating classroom management practices in Queensland state secondary schools. The survey will be available to all secondary teachers regardless of employment basis.

The expected benefits of the research

Classroom management is widely acknowledged in the literature to be one of the key components of effective teaching. Effective classroom management results in increased time for student learning. Anecdotal data from schools indicates a need for more awareness of what constitutes effective classroom management and increased consistency of implementation of evidence-based practices, particularly in secondary schools. At this point in time, no standard protocol is in use across Queensland to evaluate implementation of evidence-based classroom management practices. Findings from this research will provide information on secondary teacher knowledge, attitudes towards, and use of empirically supported practices. This will be of benefit to the Department of Education and Training, the Queensland College of Teachers, Universities and other providers of professional development and pre-service training for teachers. Potential outcomes of this research are: a) development of systems to support teachers with implementation of effective classroom management practices; b) improved consistency of use of evidence-based classroom management practices in secondary schools; c) enhanced understanding of factors impacting on teacher use of evidence-based classroom management practices.

Risks to you

We cannot identify any specific or foreseeable risks related to participation in this research.

Your confidentiality

All responses to the survey are confidential and stored information will only be accessed by the research team members for the purposes of analysis. There is no means by which responses can be linked to participants. Once the survey completion period is over, survey responses will be stored electronically as a data base spread sheet. No identifying data (e.g., name of school) will be reproduced in any publication or reporting. As required by Griffith University, all research data (survey responses and analysis) will be retained in a locked cabinet and/or a password protected electronic file at Griffith University for a period of five years before being destroyed. Participants who agree to be contacted for a follow-up interview will be asked to provide a pseudonym and mobile phone contact number.
Your participation is voluntary

Participation in this research is voluntary. You will be asked to acknowledge your informed consent when you begin the online survey. However, you can withdraw from the research at any time without comment or question. Your involvement in this research will not affect your employment or relationships at your school.

Questions / further information

If you have any further questions regarding this research please contact us.

Lorna Hepburn (Student)
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Dr Wendi Beamish (Supervisor)
(Ph) 3735 5636 or w.beamish@griffith.edu.au

Dr Helen Klieve (Supervisor)
(Ph) 3735 5925 or h.klieve@griffith.edu.au

The ethical conduct of this research

Griffith University conducts research in accordance with the National Statement on Ethical Conduct in Human Research. If potential participants have any concerns or complaints about the ethical conduct of the research project they should contact the Manager, Research Ethics on 07 3735 4375 or research-ethics@griffith.edu.au

Feedback to you

Results and findings of the survey will form part of a Doctoral Thesis which may be published in this format in the future. Academic papers using this research may also be published in educational journals. It is anticipated that the research and findings may be presented at national and international research conferences. DET and the QCT will receive summarised reports of the research findings, which may be published in publications of these organisations. Participants may request a plain language summary of research results by emailing lorna.hepburn@griffithuni.edu.au
Evidence-based Practices for Classroom Management in Queensland High Schools

**CONSENT FORM**

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By participating in the online survey, I confirm that I have read and understood the information/consent package and in particular have noted that:

- I understand that my involvement in this research will include completion of an online survey;
- I understand that I may also agree to subsequent contact from the principal researcher for the purpose of undertaking a telephone interview;
- I understand my participation in this project is completely voluntary and I can choose to withdraw at any time without question or consequences. My involvement in this research will not affect my employment or relationships at my school.
- I understand that if I have any additional questions I can contact the research team;
- I understand the risks involved;
- I understand that there will be no direct benefit to me from my participation in this research;
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project;
- I agree to complete the online survey and participate in the research.
Evidence-based Practices for Classroom Management in Queensland High Schools

Griffith University Reference No. 2015/894

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Why is the research being conducted?

The research is being conducted by telephone interview with a sample of Queensland secondary school teachers in order to explore factors impacting on teacher understanding and implementation of evidence-based classroom management practices.

Griffith University is involved in this research by the provision of research supervisors who monitor and assist the researcher in this project. All data will be stored at the Griffith Research Centre. This research will form part of a doctoral thesis.

What you will be asked to do

You are invited to participate in a 20-30 minute telephone interview with the principal researcher. The researcher will contact you on a number provided by you, and at a time nominated by you.

The basis by which participants will be selected or screened

The participants consist of secondary school teachers who are currently registered with the Queensland College of Teachers (QCT) and who are currently teaching in a state secondary school in Queensland. Participants consist of a sample of teachers who have agreed to a follow-up telephone interview at the time of completing a survey investigating classroom management practices in Queensland state secondary schools. 20-30 participants will be
selected to reflect a range of participant demographics and experience.

**The expected benefits of the research**

Classroom management is widely acknowledged in the literature to be one of the key components of effective teaching. Effective classroom management results in increased time for student learning. Anecdotal data from schools indicates a need for more awareness of what constitutes effective classroom management and increased consistency of implementation of evidence-based practices, particularly in secondary schools. At this point in time, no standard protocol is in use across Queensland to evaluate implementation of evidence-based classroom management practices. Findings from this research will provide information on secondary teacher knowledge, attitudes towards, and use of empirically supported practices. This will be of benefit to the Department of Education and Training, the Queensland College of Teachers, Universities and other providers of professional development and pre-service training for teachers. Potential outcomes of this research are: a) development of systems to support teachers with implementation of effective classroom management practices; b) improved consistency of use of evidence-based classroom management practices in secondary schools; c) enhanced understanding of factors impacting on teacher use of evidence-based classroom management practices.

**Risks to you**

We cannot identify any specific or foreseeable risks related to participation in this research.

**Your confidentiality**

Participants who agree to be contacted for a follow-up interview will be asked to provide a pseudonym and mobile phone contact number. Interview responses cannot be linked back to survey responses. Telephone interviews will be recorded for transcription purposes. As required by Griffith University, all audio recordings will be erased after transcription. However, other research data (interview transcripts and analysis) will be retained in a locked cabinet and/or a password protected electronic file at Griffith University for a period of five years before being destroyed.

**Your participation is voluntary**

Participation in this research is voluntary. You will be asked to acknowledge your informed consent when you provide contact details for the telephone interview. However, you can withdraw from the research at any time without comment or question. Your involvement in this research will not affect your employment or relationships at your school.
Questions / further information

If you have any further questions regarding this research please contact us.

Lorna Hepburn (Student)
(Ph) 0400925944 or lorna.hepburn@griffithuni.edu.au
Dr Wendi Beamish (Supervisor)
(Ph) 3735 5636 or w.beamish@griffith.edu.au
Dr Helen Klieve (Supervisor)
(Ph) 3735 5925 or h.klieve@griffith.edu.au

The ethical conduct of this research

Griffith University conducts research in accordance with the National Statement on Ethical Conduct in Human Research. If potential participants have any concerns or complaints about the ethical conduct of the research project they should contact the Manager, Research Ethics on 07 3735 4375 or research-ethics@griffith.edu.au

Feedback to you

Results and findings of the survey will form part of a Doctoral Thesis which may be published in this format in the future. Academic papers using this research may also be published in educational journals. It is anticipated that the research and findings may be presented at national and international research conferences. DET and the QCT will receive summarised reports of the research findings, which may be published in publications of these organisations. Participants may request a plain language summary of research results by emailing lorna.hepburn@griffithuni.edu.au

Privacy Statement

The conduct of this research involves the collection, access and/or use of unidentifiable information. The information collected is confidential and will not be disclosed to third parties, except to meet government, legal or other regulatory authority requirements. Data may be used for other research purposes. However, your anonymity will at all times be safeguarded. For further information consult the University’s Privacy Plan at http://www.griffith.edu.au/about-griffith/plans-publications/griffith-university-privacy-plan or telephone (07) 3735 4375.
Evidence-based Practices for Classroom Management in Queensland High Schools

CONSENT FORM

Research Team:
Lorna Hepburn (Student)
(Ph) 0400925944
lorna.hepburn@griffithuni.edu.au

Dr Wendi Beamish (Supervisor)
(Ph) 3735 5636
w.beamish@griffith.edu.au

Dr Helen Klieve (Supervisor)
(Ph) 3735 5925
h.klieve@griffith.edu.au

The following information will be read to participants before the commencement of the telephone interview. Consent will be noted as follows:
On [date] at [time] Participant X read/had read to him/her the participant information/verbal consent script, confirmed they understood the nature of the research and their participation, and agreed to proceed with the interview.

By participating in the telephone interview, I confirm that I have read and understood the information/consent package and in particular have noted that:

- I understand that my involvement in this research will involve contact from the principal researcher for the purpose of undertaking a telephone interview;
- I understand that the telephone interview will take 20-30 minutes, at a time nominated by me;
- I understand my participation in this project is completely voluntary and I can choose to withdraw at any time without question or consequences. My involvement in this research will not affect my employment or relationships at my school.
- I understand that if I have any additional questions I can contact the research team;
- I understand the risks involved;
- I understand that there will be no direct benefit to me from my participation in this research;
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project;
- I agree to participate in a telephone interview and participate in the research.
Evidence-based Practices for Classroom Management in Queensland High Schools

Griffith University Reference No. 2015/894

PRINCIPAL INFORMATION SHEET AND APPROVAL PACKAGE

<table>
<thead>
<tr>
<th>Student Investigator</th>
<th>Chief Investigator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Name: Lorna Hepburn</td>
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</tr>
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</table>

Why is the research being conducted?

The research is being conducted by online survey with a sample of Queensland secondary school teachers in order to describe teacher use of evidence-based classroom management practices. The practices identified in the survey come from a review of the literature on effective classroom management. Teachers will be asked to rate their degree of implementation of each practice.

Griffith University is involved in this research by the provision of research supervisors who monitor and assist the researcher in this project. The project is distributed via Griffith University’s LimeSurvey program with data being stored at the Griffith Research Centre. This research will form part of a doctoral thesis.

The basis by which participants will be selected or screened

The participants consist of secondary school teachers who are currently registered with the Queensland College of Teachers (QCT) and who are currently teaching in a state secondary school in Queensland. Participants consist of a sample of teachers who are interested in a survey investigating classroom management practices in Queensland state secondary schools. The survey will be available to all secondary teachers regardless of employment basis.

An initial email seeking to recruit potential participants, currently teaching in state...
secondary schools, will be sent to state secondary school principals. An Information Sheet/Informed Consent Package will be forwarded with the initial email. Principals agreeing to potential staff participation in the survey will forward the initial email and Information Sheet/Informed Consent Package to potential participants.

What you will be asked to do

You are invited to disseminate via email to teaching staff at your school, a link to an online survey that will take approximately 15 minutes to complete. Participation in the survey is anonymous and voluntary. School names are not required as part of the survey responses. Survey responses cannot be linked back to individuals or schools.

The expected benefits of the research

Classroom management is widely acknowledged in the literature to be one of the key components of effective teaching. Effective classroom management results in increased time for student learning. Anecdotal data from schools indicates a need for more awareness of what constitutes effective classroom management and increased consistency of implementation of evidence-based practices, particularly in secondary schools. At this point in time, no standard protocol is in use across Queensland to evaluate implementation of evidence-based classroom management practices. Findings from this research will provide information on secondary teacher knowledge, attitudes towards, and use of empirically supported practices. This will be of benefit to the Department of Education and Training, the Queensland College of Teachers, Universities and other providers of professional development and pre-service training for teachers. Potential outcomes of this research are: a) development of systems to support teachers with implementation of effective classroom management practices; b) improved consistency of use of evidence-based classroom management practices in secondary schools; c) enhanced understanding of factors impacting on teacher use of evidence-based classroom management practices.

Risks to teachers

We cannot identify any specific or foreseeable risks related to participation in this research.

Confidentiality

All responses to the survey are confidential and stored information will only be accessed by the research team members for the purposes of analysis. There is no means by which responses can be linked to participants.

Once the survey completion period is over, survey responses will be stored electronically as a data base spread sheet. No identifying data (e.g., name of school) will be reproduced in any publication or reporting. As required by Griffith University, all research data (survey responses and analysis) will be retained in a locked cabinet and/or a password protected electronic file at Griffith University for a period of five years before being destroyed.

Participation is voluntary

Participation in this research is voluntary. Participants can withdraw from the research at any
time without comment or question. Involvement in this research will not affect employment or relationships at schools.

Feedback to you

Results and findings of the survey will form part of a Doctoral Thesis which may be published in this format in the future. Academic papers using this research may also be published in educational journals. It is anticipated that the research and findings may be presented at national and international research conferences. DET and the QCT will receive summarised reports of the research findings, which may be published in publications of these organisations. Participants may request a plain language summary of research results by emailing lorna.hepburn@griffithuni.edu.au

Questions / further information

If you have any further questions regarding this research please contact us.

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Evidence-based Practices for Classroom Management in Queensland High Schools

CONSENT FORM

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By forwarding the link to the online survey to staff, I confirm that I have read and understood the information/consent package.
PARTICIPANT RECRUITMENT INFORMATION WITH ETHICAL APPROVAL DETAILS

Evidence-based Practices for Classroom Management in Queensland High Schools

Griffith University Reference No. 2015/894

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Email to state secondary school Principals

Dear Principal

Your support is sought to disseminate the following email to all teachers, currently working in your school.

Participants sought for research project on classroom management practices

Griffith University Doctor of Education student and registered teacher, Lorna Hepburn, is investigating the classroom management practices used by high school teachers. Secondary school teachers are invited to complete a 15-minute online survey regarding classroom management practices. Personal contact information is not requested and the researchers will be unable to identify respondents. Ethical approval for this research has been given by Griffith University (2015/894). Further information is attached. The survey is accessible here.

Contact Lorna Hepburn at lorna.hepburn@griffithuni.edu.au for further information.
Queensland College of Teachers e-newsletter

Participants sought for research project on classroom management practices
Griffith University Doctor of Education student and registered teacher, Lorna Hepburn, is investigating the classroom management practices used by high school teachers. Secondary school teachers are invited to complete a 15-minute online survey regarding classroom management practices. Personal contact information is not requested and the researchers will be unable to identify respondents. A summary report of findings will be sent to the Queensland College of Teachers for dissemination to teachers. Ethical approval for this research has been given by Griffith University (2015/894). Further information and the survey are accessible here or from Lorna Hepburn at lorna.hepburn@griffithuni.edu.au

Email to be posted on DET Discussion List

Participants sought for research project on classroom management practices
Are you a high school teacher? If so, you are invited to complete a 15-minute online survey regarding classroom management practices by clicking on the link here.
Personal contact information is not requested and responses will be anonymous. The research is being conducted by Griffith University Doctor of Education student and registered teacher, Lorna Hepburn. It is anticipated that findings from this research will inform systems of support for classroom teachers.
A summary report of findings will be sent to the Queensland College of Teachers for dissemination to teachers. Ethical approval for this research has been given by Griffith University (2015/894). An informed consent package containing more information is attached.

Email to Regional Coordinators

Dear Regional Coordinator

Your support is sought to disseminate the following information to high school Principals in your region.

Participants sought for research project on classroom management practices
A statewide survey of the classroom management practices used by high school teachers is being conducted. Your support is sought to pass on the following information to teachers at your school.
The survey can be found here and will take approximately 15 minutes to complete.
Personal contact information is not requested and responses will be anonymous. The research is being conducted by Griffith University Doctor of Education student and registered teacher, Lorna Hepburn. It is anticipated that findings from this research will inform systems of support for classroom teachers.

A summary report of findings will be sent to the Queensland College of Teachers for dissemination to teachers. Ethical approval for this research has been given by Griffith University (2015/894). An informed consent package containing more information is attached. Further information can also be requested by emailed the researcher lorna.hepburn@griffithuni.edu.au
Appendix B. Survey

This survey asks about your experiences in relation to classroom management in high schools. When complete, this research will provide information about teachers’ approaches to classroom management which will help to inform future professional development and support for high school teachers.

Welcome to the High School Classroom Management Survey. Classroom management is a key component of effective teaching, yet little is known about the actual classroom management practices most used by teachers in high schools. This survey seeks to obtain perspectives from practising high school teachers so that teacher competencies can be recognised and relevant professional development and support put in place.

All responses to this survey are anonymous and responses cannot be linked back to individuals or schools. Your participation in this survey is taken as an indication of your informed consent. This research has received ethics approval through Griffith University (2015/894) and approval from the Department of Education and Training (550/27/1698). The complete informed consent package is available by clicking /prodls190/upload/surveys/63223/files/IC_survey.zip

If you would like any further information, please contact lorna.hepburn@griffithuni.edu.au

There are 26 questions in this survey

**Part 1: Background information**
This section asks you to provide anonymous information about yourself, your school and your classes.

1 Gender
Please choose **only one** of the following:
- Female
- Male

2 Age
Please choose **only one** of the following:
- 20-29
- 30-39
- 40-49
- 50-59
- 60+

3 Years teaching (do not count extended leave or breaks in employment)
Please choose **only one** of the following:
- less than 2
- 2-5
- 6-10
- 11-20
- 20+

4 Highest level of qualification in education
Please choose **only one** of the following:
- Graduate Certificate
- Graduate Diploma
- Bachelor Degree
- Master Degree
- Doctoral Degree
5 Position at school
Please choose only one of the following:
- Classroom teacher
- Head of Department/HOSES
- Support teacher (e.g. STLAN, Coach)
- Year Coordinator
- Other

Please select your current position (including acting)

6 School sector
Please choose only one of the following:
- Government
- Independent
- Catholic

7 School location
Please choose only one of the following:
- Metropolitan (e.g. Brisbane, Ipswich, Logan, Gold or Sunshine Coast)
- Regional provincial centre (e.g. Cairns, Rockhampton, Toowoomba)
- School in country area (within 100km of metropolitan or regional centre)
- School over 100km from regional centre

8 Size of school (student enrolment)
Please choose only one of the following:
- less than 300
- 300-599
- 600-999
- 1000-1499
- 1500+

9 Year levels taught (please select all year levels currently taught)
Please choose all that apply:
- Year 7
- Year 8
- Year 9
- Year 10
- Year 11
- Year 12

10 Employment basis
Please choose only one of the following:
- Permanent full-time
- Permanent part-time
- Contract
- Relief
11 Subject areas taught this year (please select all that apply)
Please choose all that apply:
- English/History/Humanities
- Maths
- Science
- LOTE
- HPE
- Special Education
- Visual or Performing Arts
- Manual Arts/Home Economics/Vocational Studies
- Graphics/IT/Business Studies
- Other:

12 What percentage of your current teaching load is within your area of qualification?
Please choose only one of the following:
- All subjects I currently teach are within my area of qualification
- I teach 1 class outwith my area of qualification
- I teach 2 - 3 classes outwith my area of qualification
- Most of the classes I currently teach are outwith my area of qualification
- I do not teach any subjects within my area of qualification
Make a comment on your choice here:

Please add comment on impact on classroom management (optional)

13 Hours of direct teaching each week
Please choose only one of the following:
- 1-9
- 10-14
- 15-19
- 20+

14 Approximate number of students taught each week
Please choose only one of the following:
- less than 30
- 30-59
- 60-89
- 90-149
- 150+
Part 2: Classroom management beliefs and experience
This section asks about your experiences in relation to classroom management.

15 Is your school currently implementing Schoolwide Positive Behaviour Support (SWPBS), also known as Positive Behaviour for Learning (PBL)?
Please choose only one of the following:
- Yes
- No
- Unsure

16 In the last 18 months, have you participated in any professional development on classroom management?
If yes, please name the PD undertaken.
Please choose only one of the following:
- Yes
- No
Make a comment on your choice here:

16b Please indicate the PD provider
Only answer this question if the following conditions are met:
° Answer was 'Yes' at question '16 [16]' (In the last 18 months, have you participated in any professional development on classroom management? If yes, please name the PD undertaken. )
Please choose all that apply:
- School
- Region
- Private provider
- Other:

17 Do you think that your pre-service education course provided you with a good grounding in classroom management?
Please choose only one of the following:
- Yes
- No
Make a comment on your choice here:

Optional comment on your choice.
18 Please rate your level of agreement with the following statements. PLEASE NOTE THAT RATINGS GO FROM LEFT TO RIGHT STRONGLY DISAGREE TO STRONGLY AGREE.
Please choose the appropriate response for each item:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have the necessary knowledge and skills to prevent most common behaviour issues in my classes</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I have a good understanding of evidence-based practices for classroom management</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I am confident that I can deal effectively with common problem behaviours in my classes</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I feel stressed about behaviour issues in all or some of my classes</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I understand SWPBS/PBL principles and core features</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

19 Please provide some additional comments to expand on the ratings you chose in the previous question.
Please write your answer here:

20 Which classroom management practices do you use most frequently to maximise teaching and learning time?
Please write your answer here:

21 Which classroom management practices do you use most frequently to respond to behaviours that interfere with teaching and learning?
Please write your answer here:

22 How effective are the practices you listed in the previous 2 questions in your day to day teaching?

<table>
<thead>
<tr>
<th>Practice Description</th>
<th>Work all of the time</th>
<th>Work some of the time</th>
<th>Rarely work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practices to maximise teaching and learning time</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Practices to respond to behaviours that interfere with teaching and learning</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Part 3: Implementation of classroom practices
In this section you are provided with a list of classroom management practices. You are asked to rate your frequency of use of each practice.

23 Think about the classes you mainly teach. Given your current workload, please indicate the extent to which you implement the following practices as part of your regular practice. PLEASE NOTE THAT RATINGS GO FROM LEFT TO RIGHT, NEVER TO ALWAYS.

Please choose the appropriate response for each item:

<table>
<thead>
<tr>
<th>Practice</th>
<th>Never</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Fairly often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organising the classroom environment to maximise engagement (e.g. posting lesson schedule, changing room set up for activity, ease of movement, access to equipment, visibility)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving clear instructions for activities (e.g. gaining attention, brief, positively stated &amp; explicit)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching classroom procedures and routines explicitly (e.g. required procedures - going to toilet, lining up etc. broken into steps, taught &amp; practised until they become routine)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishing, reviewing and reteaching a small number of positively stated classroom rules (e.g. 3-5 positively stated rules agreed &amp; posted; referred to daily)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actively monitoring the classroom (e.g. proximity, movement, scanning, interacting, checking for understanding)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>Occasionally</td>
<td>Sometimes</td>
<td>Fairly often</td>
<td>Always</td>
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<tr>
<td>-----------------------------------------------------------------</td>
<td>-------</td>
<td>--------------</td>
<td>-----------</td>
<td>--------------</td>
<td>--------</td>
</tr>
<tr>
<td>Providing all students with frequent opportunities to respond (e.g. tracking responses to ensure all students participate, ensuring individual &amp; group responses, using varied response modes - cards, choral, written etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Differentiating instruction to suit the learner (e.g. modifying tasks, providing choices, considering interests, scaffolding)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Using non-verbal acknowledgement to encourage appropriate behaviour (e.g. smile, thumbs up, touching desk)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Providing specific, descriptive feedback on appropriate behaviour (e.g. describe positive behaviour demonstrated, link to classroom rules)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Using a classroom reward system (e.g. tokens/points, immediate, short &amp; long term system, linked to expectations, agreed criteria, students involved in selection)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Maintaining at least a 4:1 ratio of positive to corrective feedback (e.g. positive feedback outweighs correction at least 4:1, regular self-monitoring or data collection to check ratio)</td>
<td>☐</td>
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<tr>
<td>Providing frequent prompts for appropriate behaviour (e.g. reminders prior to known problem times/activities, non-verbal prompts, visual &amp; verbal reminders)</td>
<td>☐</td>
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</tr>
</tbody>
</table>
Incorporating teaching opportunity when responding to minor behavioural concerns (e.g. rule reminders, providing rationale for expected behaviour, modelling, practice opportunities)

Consistently responding to problem behaviour (e.g. calm body language & voice, least to most intrusive continuum, consequences aim to correct & teach, consistent follow-through using agreed school process)

Never  Occasionally  Sometimes  Fairly often  Always

☐  ☐  ☐  ☐  ☐  ☐  ☐

24 Please use this space to provide examples of the practices you use, or to expand on your responses

Please write your answer here:

25 Would you be interested in being contacted confidentially by the researcher to participate in a 30 - 40 minute telephone interview about your classroom management beliefs and experiences?

Click on the link on the next page to register. Please be assured that all information gathered will be de-identified.

Please choose only one of the following:

☐  Yes
☐  No

Selecting 'yes' is an indication of initial interest only. The researcher will contact you to confirm your participation and to arrange a suitable time. Please click on the link on the following page to register your interest.

If you agree to a follow-up phone interview, please click on the following link:

Thank you for participating in this survey. Research findings will be made available through the Queensland College of Teachers.

01.09.2016 – 00:00

Submit your survey.
Thank you for completing this survey.
Appendix C. Phone Interview Questions and Prompts

Questions & Prompts - Telephone Interview

Definition – strategies or practices used to maximise engagement and create an environment conducive to learning

1. How does your school expect you to manage student behaviour in your classroom?
   - Are you expected to use a specific framework, process or set of practices?
   - Have expected procedures been communicated clearly?
   Seeking to find out if there is a consistent, proactive approach linking schoolwide and classroom systems; if common practices are established; what teachers think about the school’s approach; if teachers feel supported

2. How would you describe your personal classroom management approach?
   - What do you believe works?
   - What personal beliefs do you have about the best way to approach classroom management?
   Seeking to find out if teacher has a predominantly proactive or reactive approach; whether teacher has a personal philosophy in relation to classroom management

3. Which classroom management strategies do you find most effective on a day to day basis, given your current workload and classes?
   - How often would you use these strategies?
   - Would you use the same strategies with all classes?
   Seeking to find out which strategies teachers are aware of, find effective and use most. Also seeking to establish if teachers are happy with the outcomes, or identify ongoing issues.

4. What do you understand evidence-based classroom management to be?
   - Can you give some examples of what you would consider evidence-based strategies?
   - Do you think research on classroom management has application in your classroom, or is relevant to you as a teacher?
   Seeking to discover if teachers are aware of EBPs and consider EBPs relevant to their classrooms

5. How satisfied are you with the behaviour and engagement of your current classes?
   - On a scale of 1 to 10, how would you rate your satisfaction?
   - Are students in your classes mainly engaged and working to potential?
   - Are you happy with the way students interact with each other and with you?
   Seeking to determine if teachers foster a positive classroom environment and believe students are performing to potential

6. What has helped you to develop confidence and skills in classroom management?
   Or
What support would you like to help you to develop more confidence and skills in classroom management? (if previous responses indicate confidence/skills lacking)

*Seeking to find out what supports teachers to develop classroom management confidence and skills; any identified needs in relation to further development of skills.*

7. What are the classroom management challenges for you as a teacher, or for teachers at your school?
   - Is there anything you think your school could do better to support teachers?
   - Is there anything else that you think could be done to support teachers more with classroom management?

*Seeking to find out what are the perceived challenges to effective schoolwide classroom management.*

8. Is there anything else you would like to add?
Appendix D. Algorithms Used in Regression Analysis

Practices Where Binomial Model Used
- Organising the classroom environment to maximise engagement
- Teaching classroom procedures and routines explicitly
- Establishing, reviewing and reteaching a small number of positive class rules
- Providing all students with frequent opportunities to respond
- Differentiating instruction to suit the learner
- Using non-verbal acknowledgement to encourage appropriate behaviour
- Providing specific, descriptive feedback on appropriate behaviour
- Providing frequent prompts for appropriate behaviour
- Incorporating teaching when responding to minor behavioural concerns
- Consistently responding to problem behaviour

Responses for these 10 EBPs were modelled using a binomial generalised linear model with logit link using a Markov chain Monte Carlo (MCMC) algorithm:

\[
\log\left(\frac{p}{1-p}\right) = x\beta
\]

In this model \( p \) is the response (0, 1) where 0 indicates respondents *occasionally* used the EBP and 1 indicates respondents *often* used the EBP, and \( x \) represents the independent variables: working in a school implementing PBL; understanding of PBL; professional development in classroom management accessed; having the knowledge and skills to prevent problem behaviour; understanding of EBPs for classroom management; confidence in managing problem behaviour and feeling stressed about behaviour issues.

Parameters in this model were estimated using a uniform prior on the parameters (\( \beta \)).

Practices Where Ordinal Probit Model Used
- Using a classroom reward system
- Maintaining at least a 4:1 ratio of positive to corrective feedback.

Responses for these 2 EBPs were modelled using a multinomial ordinal probit model. Modelling used a probit link which can be represented as follows:

\[
P(y \leq j) = \Phi(y_j - \beta x)
\]

where \( y \) is the response (0, 1, 2) with 0 indicating no use of the EBP, 1 indicating occasional use of the EBP, and 2 indicating the EBP is often used, \( j \) represents the perceived frequency of use of the EBP, \( \Phi \) represents the cumulative normal distribution, \( y_j \) is the intercept for the likelihood of selected frequency ratings, and \( x \) represents the independent variables: working in a school implementing PBL; understanding of PBL; professional development in classroom management accessed; having the knowledge and skills to prevent problem behaviour; understanding of EBPs for classroom management; confidence in managing problem behaviours; and feeling stressed about behaviour issues. Then \( \beta \) represents the coefficients of the effect of \( x \) on the outcome.