

SUSTAINABILITY OF SCHOOL-WIDE POSITIVE BEHAVIOUR INTERVENTIONS AND
SUPPORTS:
A QUALITATIVE STUDY OF CRITICAL INCIDENTS

by

Theresa Andreou

M.Ed., The University of British Columbia, 1998

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

in

The Faculty of Graduate Studies

(School Psychology)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

April, 2012

©Theresa Andreou, 2012

Abstract

The purpose of this study was to identify, categorize and describe the insider's perspective on what helps and what hinders sustainability of School-wide Positive Behavioural Interventions and Supports (PBIS). Seventeen participants involved in sustaining PBIS over several years were interviewed and asked what events significantly affected the durable long term implementation of PBIS. Two hundred and twenty eight critical events were recorded and sorted into emergent unitary clusters based on content analysis. These categories then underwent rigorous reliability and validity checks including expert analysis, interrater agreement, and participant feedback. This process yielded 13 categories used to comprehensively represent the participants' experience of sustainability: PBIS Teams, Continuous Teaching, Focus on Positives, Staff Ownership, Administrative Involvement, Adaptation, Community of Practise, Use of Data, Involving New Personnel, Access to External Expertise, Priority, Staff Turnover, and Conflict of Personal Beliefs/Mistaken Beliefs.

Preface

The thesis and original research presented here was undertaken by the graduate student; with advisement from her research supervisor. The graduate student was the primary person responsible for the data collection, recruitment, analysis, and writing, and therefore, this thesis characterizes her work as a lead researcher and author. Ethics Approval for this research project was procured from UBC Behavioural Research Ethics Board (BREB) to conduct this research. The UBC BREB certificate number is H09-03451.

Table of Contents

Abstract.....	ii
Preface.....	iii
Table of Contents.....	iv
List of Tables.....	vii
List of Nomenclature and Abbreviations.....	viii
Acknowledgements.....	ix
Chapter I: Introduction.....	1
Study Relevance and Importance.....	1
Origin and Conceptualization of PBIS.....	2
Primary Components and Structure of PBIS.....	2
Evidence of PBIS Effectiveness.....	5
Sustainability of PBIS.....	6
Definition of Sustainability.....	6
Contributions from Other Fields.....	7
Studies on Educational Sustainability.....	8
A Proposed Model of Sustainability.....	9
The Need for Qualitative Research to Understand Sustainability of PBIS.....	10
Description of Critical Incident Technique.....	11
Review of CIT Research.....	12
The Present Study.....	14
Chapter II: Method.....	15
Setting.....	15
Participants.....	16

Sample Adequacy.....	16
Interview Measure.....	17
Recruitment.....	18
Data Analysis.....	19
Transcription and Extraction.....	19
Descriptive Validity.....	19
Coding Categories.....	20
Interpreting the Data and Reporting the Results.....	21
Trustworthiness of Data and Interpretations.....	21
Chapter III: Findings.....	25
Continuous Teaching.....	27
Focus on Positives.....	29
PBIS Team Effectiveness.....	33
Staff Ownership.....	35
Adaptation.....	38
Connection to a Community of Practice.....	41
Involving New Personnel.....	43
Use of Data.....	45
Access to External Expertise.....	48
Priority.....	50
School Administrator Involvement.....	53
Staff Turnover.....	56
Conflict in Personal Beliefs or Mistaken Beliefs.....	58
Research Contributions.....	74
Limitations and Future Directions.....	77

Conclusion.....	78
References.....	79
Appendix A Questionnaire	90
Appendix B Interview Protocol Checklist	92
Appendix C Independent Judge Protocol for Category Sort	94
Appendix D Tracking the Emergence of New Categories	96
Appendix E Participant Check Format	98

List of Tables

Table 2.1 Demographics and PBIS Criteria of Participating Schools	15
Table 3.1 Critical Incident Categories	25

List of Nomenclature and Abbreviations

PBIS	Positive Behavioural Interventions and Supports
CIT	Critical Incident Technique
CI s	Critical Incidents
ODRs	Office Discipline Referrals
SWIS	School Wide Information System

Acknowledgements

I wish to thank the teachers, district personnel and administrator in the Chilliwack School District that volunteered their time to make this research project possible. I would like to acknowledge all the support and mentorship given by my research advisor Dr. Kent McIntosh. Thanks also go out to Dr. Marla Buchannan for introducing me to this method and mentoring my research. I also wish to thank Dr. Ruth Ervin who sat on my committee and provided valuable feedback.

Appreciation is also given to my family for all their support.

Chapter I: Introduction

Study Relevance and Importance

Educators today are being challenged to extend efforts to meet social behavioural needs in addition to academic objectives, in an environment where time and resources are already stretched to capacity. Current government policies have mandated more proactive, comprehensive approaches to support the social, emotional, and behavioural needs of students with an increased emphasis on accountability. Recent initiatives by the BC Ministries of Education and Health have stressed the importance of positive classroom climates to promote optimal social behaviour growth (e.g., B.C. Ministry of Children and Family Development, 2008; B.C. Ministry of Education, 2007). Based on rising dissatisfaction in schools with reactive and punitive approaches to school discipline (Skiba & Peterson, 2000), there has been a paradigm shift toward more broad-based, preventive, and ecological approaches to supporting student behaviour needs (Walker & Shinn, 2010).

As an example, School-wide Positive Behaviour Interventions and Support (PBIS; Sugai & Horner, 2009) is an approach that incorporates the principles of applied behaviour analysis, contextual validity, systems change, inclusive ethics, and stakeholder collaboration to enhance learning and social environments. Recent research shows that PBIS has emerged as an effective, efficient, and ecological means of improving long-term behavioural outcomes and social competencies (Horner et al., 2009; Bradshaw, Mitchell, & Leaf, 2010). In day-to-day interactions, PBIS provides teachers with systems for implementing contextually relevant, evidence-based interventions and data driven decision-making tools to promote social responsibility and address classroom management and discipline concerns, resulting in increased instructional time and academic achievement (Algozzine & Algozzine, 2007). Approaches such

as PBIS address growing mental health concerns and behavioural problems in schools by recognizing the importance of systems change to promote positive classroom climates that are healthy and safe environments for all children (Knoff, 2008).

Origin and Conceptualization of PBIS

PBIS emerged in the late 1980s as an attempt to refocus educational efforts toward social behaviour objectives and the utilization of effective behaviour management strategies (Lewis & Sugai, 1999; Sprick, Sprick, & Garrison, 1992; Walker et al., 1996). Its theoretical underpinnings are multifaceted, but draw primarily on behavioural theory and applied behaviour analysis (Carr, 1997; Dunlap, 2006). PBIS strategies are based on the notion that all behaviour is learned and rules are followed in response to antecedents and consequences (Carr et al., 2002; Filter, 2007). Within this behavioural framework, contextual factors are changed to prevent problem behaviours and increase the likelihood of prosocial behaviours. The *PBIS Implementer's Blueprint* (Sugai et al., 2010) incorporates principles of system change, such as teacher and administrator “buy in” and an organizational emphasis on capacity building, training, implementation integrity, adaptation, and ongoing evaluation at all levels. According to Dunlap, Sailor, Horner, and Sugai (2009), behaviour change is viewed from a broad social-ecological perspective and promotes important long-term lifestyle outcomes for students. Sugai, Horner, and McIntosh (2008) describe PBIS as being solidly grounded in the concept of “best practices” (e.g., direct instruction, research-based interventions).

Primary Components and Structure of PBIS

Sugai and Horner (2009) described PBIS as having four core operational components:

- (a) measurable academic social behaviour outcomes
- (b) information or data to guide decision making and selection of effective behavioural

interventions

(c) evidence-based interventions that support student academic and social behaviour success

(d) system supports designed to increase the accuracy and durability of practice implementation (p. 309)

These core features are functionally applied through a three tiered continuum of service delivery with the capacity to support a wide range of student needs.

At Tier I, universally effective strategies are broadly applied to all students by all school personnel to promote social responsibility (Nelson, Benner, Reid, Epstein, & Currin, 2002). To achieve this aim, there must be organizational agreement, accountability, and consistency across philosophy, objectives, and daily activities. Expectations are contextually defined and positively worded (e.g., respect for self and others, achievement, personal responsibility; Sugai & Horner, 2009). For example, a school may use an acronym such as SOAR, to teach Safety, Organization, Accountability, and Respect. The acronyms selected commonly have contextual relevance for the students and school community. Each element is contextually and concretely defined using a matrix providing specific examples of expectations in each setting around the school. In this example, Safety and Respect regarding the use of the school restroom are defined as Restroom Rules (1) have a pass, (2) keep the restroom clean, and (3) respect others' privacy. Expectations are made visible (e.g., coat of arms with the acronym at entrance of the school) and rules are posted in the classroom as well as strategic locations around the school (e.g., tiles with rules mounted on the restroom wall). PBIS emphasizes the direct instruction of school-wide expectations and social-emotional competencies (i.e., teaching, modeling, guided practice, reinforcement and corrective feedback), for all students in all settings, to achieve successful

social behaviour change (Carr et al., 2002; Filter, 2007). Illustrations of direct teaching include: targeted lessons taught across the grades, demonstrations in settings where problem behaviours often occur, and practice with performance feedback. In addition, Tier I practices include a continuum for systematic reinforcement of positive behaviours (e.g., high rates of acknowledgement and external rewards moving into more infrequent internalized/social rewards, positive person-to-person interactions, high ratio of positive to negative reinforcement, labelling of observable behaviours to be rewarded). For example, students across the grades might receive acknowledgement tickets (e.g., Terrific U Toucan Awards) attached to a point system where they can earn money to spend at school store, or to attend a school event. In addition, monthly or quarterly recognitions are often given to one student per class (e.g., Tony Award – good citizen award earns free lunch with two friends and the principal). An equally important continuum of instructional consequences is developed for violations of expectations (e.g., violations are explicitly defined, a differentiated level of response for problem behaviours handled in the classroom, and those handled by the office, agreed-on strategies for dealing with challenging behaviours). A formalized data collection and decision making system must be in place (e.g., standardization and collection of Office Discipline Referrals [ODRs], behavioural incident reports) to direct continued support. The School-Wide Information System (SWIS; May et al., 2008), a commonly used computer application, allows teams to save, analyze data, print reports, and share ongoing information across school personnel. Data are examined monthly to determine patterns related to time of day, types of behaviours, and location, which leads to plans to target problem areas and further progress monitoring to assess response toward desired outcomes.

Tier II and III support are provided to students who have not responded to universal strategies. At Tier II, students “at risk” for developing more persistent problems are provided with more intensive strategically differentiated interventions (e.g., small group social skills instruction). Tier III involves a small percentage of the school population, where both the amount and intensity of support are increased in response to more intensive behavioural challenges (Bambara, Nonnemacher, & Kern, 2009; Bohanon, Flannery, & Malloy, 2009).

Evidence of PBIS Effectiveness

Over the past decade, many empirical studies have demonstrated the efficacy of PBIS in preventing and reducing challenging behaviours across early childhood (Stormont, Covington, & Lewis, 2006), elementary school (Colvin, & Fernandez, 2000; Horner et al., 2009; Mass-Galloway, Panyan, Smith, & Wessendorf, 2008), and middle and high school settings (Bohanon et al., 2006; Dedes, 2004; Muscott, Mann, & LeBrun, 2008). In particular, the literature indicates that fully implemented Tier I PBIS is consistently linked to positive outcomes such as reduction in suspensions, decrease in office discipline referrals, increased academic achievement, improvements in school safety and positive school climate (Barrett, Bradshaw & Lewis-Palmer, 2008; Bradshaw, Mitchell, & Leaf, 2010; Horner, Sugai, Todd, & Lewis-Palmer, 2005; Horner, et al., 2009). Studies clearly show that PBIS is a socially valid approach to reducing discipline-based referrals (Curry, 2008; Menendez, Payne, & Mayton, 2008). By reducing behaviour challenges, PBIS allows staff to spend more time focusing on instruction (Colvin & Fernandez, 2000). Of great interest are the emerging studies, showing improvement in both academic and behaviour outcomes (Eber, 2006; Ervin, Schaughency, Goodman, McGlinchey, & Matthews, 2006; Lane, Wehby, Robertson, & Rogers, 2007; McIntosh, Chard, Boland, & Horner, 2006; Nelson, Martella, & Marchand-Martella, 2002). The proposed mechanism by which PBIS

enhances academic outcomes is the increase in teacher instructional time (Lassen et al., 2006; Luiselli et al., 2005). As administrators and teachers spend less time dealing with behaviour problems, and students spend more time in the classroom (Scott & Barrett, 2004), teachers can focus on quality instruction without distractions. The overall findings of a recent meta-analysis by Solomon, Klein, Hintze, Cressey, and Peller (2009) also suggested that PBIS leads to more positive teacher-student interactions while decreasing problem behaviours.

Sustainability of PBIS

Though many studies have evaluated implementation effects (Barrett et al., 2008; Menendez, Payne, & Mayton; Muscott et al., 2008), very few to date have specifically looked at “how” and “why” PBIS is sustained (Doolittle, 2007; McIntosh, Horner, & Sugai, 2009; Vaughn, Klingner, & Hughes, 2000). In fact, studies that have examined this issue indicated that sustainability of even the most efficacious research-based practices cannot be assumed (Carnine, 1999; Fuchs et al., 1996; Mastropieri & Scruggs, 1998; Santangelo, 2009; Vaughn, Hughes, Schumm, & Klingner, 1998). As PBIS moves from a limited-scale intervention to a widespread educational initiative, educators, researchers and policy makers will need to know considerably more about the relevant factors that benefit and those that hinder the sustained use of PBIS over time.

Definition of Sustainability

Han and Weiss (2005) described sustainability as the “continued implementation of an intervention or prevention program, with ongoing implementation fidelity to the core program principles, after supplemental resources used to support initial training and implementation are withdrawn” (p. 666). In addition to ongoing fidelity of core program components, this process must involve regeneration and adaptation, so that day-to-day implementation continues to be

contextually relevant and cost effective. Another term often used to delineate sustainability in the literature is institutionalization (Adelman & Taylor, 1997). This term refers to the integration of an innovation into an organizational structure and focuses on building local capacity to take over the efforts of external change agents to assume long term responsibility for outcomes (Sigurdsson & Austin, 2006).

Contributions from Other Fields

To fully understand the mechanism of sustainability, many relevant insights can be gained from studies outside of education (e.g., agriculture, health care, organizational behaviour management, and psychology). For instance, Rogers' (2003) theory of diffusion, generated from the field of agriculture, facilitates our understanding of systems change as a complex social process where five characteristics (relative advantage, compatibility, trialability, observability, and re-invention) are exchanged through a social network over time (Ervin & Schaugency, 2008). Using Rogers' theoretical framework to examine PBIS sustainability, Sparks (2007) found that practitioners perceived these characteristics of innovation to be active elements in schools that maintained high levels of implementation over three years. In particular, Sparks found participant perceptions and communication networks of individuals who differed (e.g., non-grade level colleagues, specialists, administrators, teachers) to be critical factors in this process. Rogers' theory also emphasized that re-invention needs to include the creative reinvestment in improvement. Ervin and Schaugency, using Rogers' model, reasoned that in universal preventative initiatives, there are ongoing uncertainties faced by practitioners, and this experience of dissonance motivates them to seek further information, via social networks, to lessen it. From a social psychological perspective, it is likely that sustainability is influenced by ongoing opportunities for social information exchange as well as social rewards.

Studies on Educational Sustainability

Within the educational research literature, several key elements related to sustaining practices have been highlighted. For example, studies indicated that practitioners' beliefs and attitudes--particularly toward perceived impact, self-efficacy, and ongoing buy-in--play a significant role in the continuance of a practice (Baker, Gersten, Dimino, Griffiths, 2004; Hieneman & Dunlap 2001; Vaughn et al., 1998). Other important sustainability factors identified in the research literature include training, integration of learning with currently held pragmatic knowledge, building capacity, and translation of technologies into the context of everyday functioning (Baker et al., 2004; Klinger, Vaughn, Hughes, & Arguelles, 1999).

Drawing from the evidence reviewed, Hieneman and Dunlap (2000) found influencing factors clustered around acceptability, degree of individual and agency collaboration, and contextual fit of the approach. Not surprisingly, district-level support has been found to have a pervasive domino effect on implementation integrity, perceptions, and outcomes related to sustainability (Santangelo, 2009). Support and collaboration (e.g., district level networking) beyond the classroom level have also been emphasized (Fullan, 2005). Consistent with these findings, Bambara, Nonnemacher, and Kern (2009) completed a qualitative examination of Tier III PBIS. Their findings linked sustainability to categories of school culture, administrative leadership, structure and use of time, ongoing professional development, and family and student involvement. Within these social networks of influence, it has been suggested that leadership characteristics may also play a pivotal role (Ervin & Schaughency, 2008). For example, administrative buy-in and follow through, self evaluation, fostering shared philosophy among staff, and long term commitment from school and district administration are important to sustainability (Netzel & Eber, 2003), but other aspects include the interpersonal and consultation skills, ethical beliefs, and professional standards of key facilitators (Knoff, 2008). Similarly,

Adelman and Taylor (2003) identified four key components to attenuate system-level institutionalization: a site-based steering mechanism, a site-based change team, a change agent who works with these teams, and mentors or coaches who model and teach the new approach.

Throughout all the research reviewed, seven central categories consistently surfaced: a common ground/belief, perceived cost-benefits, contextual fit, multi-level professional networks, leadership characteristics, capacity building, and re-investment.

A Proposed Model of Sustainability

Based on the current sustainability literature, McIntosh and colleagues (2009) proposed a working theoretical model of sustainability framed within a behavioural perspective. Implementation fidelity is emphasized as an overriding element that drives the process. According to McIntosh and colleagues, the seminal characteristics that support PBIS sustainability at the school level include: (1) a coordinated leadership team to provide active administrative support, evaluation, and capacity building, (2) social behaviour mandated as a top priority (e.g., commitment at all levels, advocacy, policy reform, and initiative blending), (3) effectiveness and efficiency (influenced by degree of fidelity, perceived cost benefits, rewards, outcome attribution, and ease of maintenance), (4) continuous measurement (e.g., ongoing monitoring and recording of student behaviour and implementation integrity), and data-based decision making (e.g., an evaluation plan and systematic use of data to direct interventions), and (5) building capacity (e.g., ongoing support from a district coach) and continuous regeneration (e.g., adaption of practices to changing context). Based on this model, a research measure, the *School-wide Universal Behavior Sustainability Index: School Teams* (McIntosh, Doolittle, Vincent, Horner, & Ervin, 2009), and an accompanying sustainability checklist (McIntosh, 2010) were developed to assess key sustainability components (i.e., priority, building leadership,

external expertise, effectiveness, efficiency, data-based decision making, capacity building, and overcoming barriers) and assist teams in self-monitoring and ongoing evaluating.

The systems level approach to implementation is critically linked to lasting sustainability. A system level approach to sustainability must formally consider durability of resources and responsibilities at all levels. Organizational elements, such as leadership teams, coaching support, uniform agreement, training and evaluation capacity, funding, visibility, and demonstration, need to be formulated within a contextual framework that can be realistically maintained over time (McIntosh et al., 2009). Yet the research base on sustainability is primarily based on theory or descriptive evidence, as opposed to empirical research. Both quantitative and qualitative research on sustainability needs to be garnered to pragmatically direct schools as they implement PBIS (McIntosh et al., 2010).

The Need for Qualitative Research to Understand Sustainability of PBIS

To address the dearth in research on sustainability and respond to the call for more diverse research modes to explore this emergent construct, the current study takes a qualitative look at sustainability from the “insider’s” perspective. Though the current literature suggests a number of factors contributing to sustainability of PBIS (Baker, et al., 2004; Bambara, et al., 2009; Doolittle, 2006; Gersten, Chard, Baker, 2000; Vaughn, Klingner, & Hughes, 2000), more needs to be known about the process factors that are perceived as helpful or hindering to long-term systems change by educators working in the field. As of yet, few studies have examined sustainability from a qualitative standpoint. Qualitative research that asks questions regarding “how” or “why” sustainability occurs under real world conditions will ultimately help educators, administrators, policy makers, and researchers more fully understand how initiatives remain sustainable, as well as what steps can be taken to enhance sustainability (Ervin & Schaughency,

2008). Many prominent researchers in the field recognize the need for diverse methods of exploration, as “qualitative studies . . . shed light on unanticipated consequences of current practice, and thus can lead to better conceptualization of interventions and reappraisal of practice” (Gersten, Baker, Smith-Johnson, Flojo, & Hagan-Burke, 2004, pp. 330-331). Elias, Zins, Graczyk, and Weissberg (2003) encouraged researchers to make practitioners’ implicit theories of how practices are sustained more explicit, by documenting and exploring their day-to-day experiences. McIntosh and colleagues (2009) also made the point that, apart from implementation, sustainability is a distinctly unique and noteworthy phenomenon when it occurs, and that much can be learned from examining these situations. A greater understanding of the process by which sustainability occurs can be beneficial in terms of expanding the knowledge base of system change, but equally important it can provide a stronger theoretical context upon which current and future initiatives can reflect.

Description of Critical Incident Technique

According to Flanagan (1954), critical incident technique (CIT) is a set of procedural steps that focuses upon actual happenings in a particular way and allows pragmatic insights to be drawn concerning real-world problems. CIT is a qualitative research method anchored in the sociological perception that the participant’s experiences, behaviours, words, and actions provide useful information regarding substantive problems (Creswell, 2007). This method also acknowledges that reality cannot be separated from the naturalistic context, and the interactional relationship between the data and the researcher. Within this methodological tradition, conceptual insights are often subjectively illustrated, descriptive, and generative. The language of those interviewed becomes central to the construction of knowledge. First person quotations are frequently used to describe key findings.

CIT is uniquely well-situated to illuminate the complexities of sustainability because it illustrates the insider's perspective of the lived experience. Of relevance to the current investigation is the application of CIT to studying the sustainability of health care promotion across multiple sites by Pluye, Potvin, Denis, Pelletier, and Mannoni (2005). CIT proved to be a useful methodology in further generating and assessing existing hypotheses related to routine creation within health promotion. The primary categories that surfaced included incentives, risk-taking, stabilization of resources, investment in adequate resources, recognized failures, reorientation, competition, and adaptation. In particular, the CIT methodology helped to clarify events related to risk-taking and stabilization of resources that most significantly affected the trajectory toward sustainability. CIT allows the researcher to view "precisely what it is necessary to do and not to do if the activity is to be judged successful or effective" (Fisher & Oulton, 1999, p.113). The use of CIT in the present study will serve a similar generative and substantive function.

Review of CIT Research

Though CIT was first used to evaluate the qualifications of aviation crews in World War II, Flanagan (1954) more formally developed the governing principles of this technique so that it could be applied broadly to other fields of research. As it has evolved, this approach has become well-suited to exploratory and theory building research in applied settings (Butterfield, Borgen, Amundson, & Maglio, 2005; Butterfield, Borgen, Maglio, & Amundson, 2009; Chell & Pittaway, 1998; Woolsey, 1986). CIT allows researchers to make sense of phenomena and understand the meaning of critical happenings through the lens of the participants in the natural setting where it unfolds. By analytically unpacking the behaviours that are perceived to benefit or hinder a specific outcome such as sustainability, researchers can more fully examine the story

behind unique happenings (Woolsey, 1986). In CIT, the investigator must work to systematically uncover not only a detailed behavioural description of the critical incident, but more importantly seek to understand “how” respondents attach meaning to these significant happenings. Typically through retrospective self-reports (obtained through semi-structured interviews), the researcher collects data in the form of words that are inductively analyzed and coded to underscore the participants’ perspective (Butterfield et al., 2005, 2009; Creswell, 1998). Chell (1998) highlights that CIT has withstood the test of time, surviving the positivistic era, due to its application within both a scientific and a phenomenological paradigm. CIT is a flexible, well-formulated methodology that allows researchers to narrow in on specific issues within a domain (Chell & Pittaway, 1997), and as a result, it has been widely applied across the diverse fields of industrial and organizational psychology (Anderson & Wilson, 1997), nursing (Grant & Hryack, 1987; Norman, Redfern, Tomalin, & Oliver, 1992), hospitality management (Chell & Pittaway, 1998), counselling (Bedi et al., 2005; Butterfield et al., 2005, 2009; Woolsey, 1986), and education (Douglas, McClelland, & Davies, 2008; Fisher & Oulton, 1999; Radford, 2006; Voss, 2009).

In a comprehensive review of CIT, Butterfield and colleagues (2005) used Creswell’s framework to outline the seminal qualitative components of CIT: (1) the unit of analysis is the critical happening that helped or hindered the aim of a central activity, (2) the theoretical perspective is based on industrial and organizational psychology, (3) gathering of data routinely involves interviews, (4) the core objectives of data analysis are to establish a frame of reference, identify precipitating content categories, and setting the level of descriptive detail for interpreting and sharing results, (5) summaries are commonly used as descriptive categories that are functionally delineated and given self-explanatory labels (Butterfield et al., 2005, p. 483).

Finally, specific studies on the scientific rigor of CIT methodology suggested that it can be both a reliable and valid research tool for studying task analysis (Andersson & Nilsson 1964; Ronan & Latham, 1974).

The Present Study

Acknowledging that sustained implementation of educational initiatives is a distinctive and fairly rare phenomenon, the current study capitalizes on a unique opportunity to gain insight into the grassroots factors affecting this process from an insider's perspective. Specifically, this study departs from previous empirical implementation studies and takes a qualitative look at the underlying story of sustainability of PBIS as it unfolds in the real world. Research questions that were explored in this study include:

1. What are the critical incidents (events or behaviours) that benefit the sustainability of PBIS?
2. What are the critical incidents (events or behaviours) that hinder the sustainability of PBIS?

Chapter II: Method

Setting

The study took place in a school district in rural British Columbia with schools that have been implementing PBIS for over a decade. The district is comprised of 32 schools, with an enrolment of 14, 000 students. According to the Early Developmental Instrument (EDI) Community Survey Summary (2010) the students within the sampled school district are rated relatively high for vulnerability, with 33% of students in the lowest 10th percentile in Physical Health/Well-Being, Social Competence, Emotional Maturity, Language and Cognitive Development, or Communication/General Knowledge. Within this district, specific settings included the district office and three elementary schools implementing PBIS with fidelity. At each school, implementation of PBIS was above the criterion for adequate implementation (80% implementation or above) on the School-wide Evaluation Tool, a research validated external evaluation of PBIS fidelity of implementation (Sugai et al., 2001). Demographic data for each of the schools are presented in Table 2. These schools represent a sample of convenience and opportunity, given that the selected schools have been implementing and sustaining the PBIS approach from ten to fourteen years.

Table 2.1 Demographics and PBIS Criteria of Participating Schools

School	Enrolment	Number of Years Implementing PBIS	Neighbourhood SES	School-wide Evaluation Tool Score
School # 1	257	14	Low	87%
School # 2	236	11	Low	86%
School # 3	329	10	Middle	89%

Participants

The participants to the study were a voluntary sample of 17 educators, including current and former district administrators and teachers and administrators from the three schools. These participants included a representative cross section of educational professionals, including four administrators, four district consultants, three special and six regular education teachers familiar with the aim and the daily activities of PBIS (i.e.; qualified observers; Flanagan, 1954).

Minimum criteria for participation included: (a) professional development in PBIS implementation and, (b) two years of previous or current participation in PBIS in one of the three schools (Bambara et al., 2009). To ensure that all participants shared the same frame of reference (Flanagan), participants were presented with an outline of PBIS aims and functional activities (see Appendix A) and then were asked whether the description and activities were consistent with their experiences. All participants fully agreed with the PBIS aims and objectives specified, establishing that they shared a common knowledge of the aims and activities associated with PBIS.

Sample Adequacy

The interviews conducted generated 228 critical incidents (CIs) for analysis. Flanagan (1954) emphasized that the fundamental motivation for having a sufficient number of incidents is not to be able to make statistical generalizations, but rather an effort to ensure that the domain of interest is fully represented. The collection of 100 incidents is considered adequate when the features of the activity are fairly straightforward (Flanagan, 1954; Radford, 1996; Voss, 2009). Thus, the number of CIs obtained in this study appears sufficiently representative in breadth to

effectively capture the content domain of the activity under study (Flanagan, 1954; Bedi, Davis and Williams, 2005).

Interview Measure

A detailed data collection protocol and interview questionnaire adapted from Bedi et al., (2005) and Butterfield et al., (2009) were developed by the primary researcher (See Appendices A and B). The objective of the interview process was to allow the participants to tell their stories by eliciting detailed behavioural descriptions of CIs, including their relevance to the general aim and the level of impact. Specifically, interviewees were asked to describe concrete incidents that they observed or experienced that especially benefited or hindered the sustainability of PBIS. Incidents were defined as “any reported occurrence that could be translated into specific, observable, and behavioural terms” (Bedi et al., 2005, p. 314) to guide the interview process and follow up questions (e.g., Can you think of a specific time when that happened? What did . . . look like?). Probes and paraphrasing were used to ensure that events recollected were sufficiently specific and rich in detail and establish correctness of the data and the relative importance of each event (Flanagan, 1954). A premise of the CIT approach is that information is more accurate when significant or relevant events are recalled in great detail, breadth, and clarity (Flanagan; Woolsey, 1986). Face to face interviews allowed the researcher to ask clarifying questions and explore how causal meaning was attached to the events or why the interviewee perceived the incident to be critical (e.g., “why did you feel the networking . . . the sharing three times a year with the PBIS teams . . . how do you see that as connected to the sustainability piece?”). Follow-up questions also allowed the researcher to examine the same content areas (i.e., helping and hindering factors) at the same level of detail across all participants (Butterfield

et al., 2009). A prescribed set of follow-up questions were used in cases where the initial responses were incomplete or vague.

To ensure fidelity to the interview process, both the interview protocol and questionnaire were reviewed by independent researchers with specialized expertise in the areas of methodology (CIT interviewing) and content (PBIS), as recommended by Bedi and colleagues (2005).

Formative and summative feedback led to refinements on the wording, order, and the appropriateness of the questions for eliciting richly detailed incidents. For example, it was anticipated that the term “sustainability” might be confusing or unfamiliar to some participants, thus this term was clearly defined verbally and in a written format at the beginning of the interview. The terms “durable” and “long-lasting practice” were used simultaneously with sustainability throughout the interviews to further clarify the concept of sustainability for participants.

Procedure

Recruitment

Schools and participants were recruited through the district PBIS coordinator and the investigator’s research supervisor, who worked in partnership with the district. The district PBIS coordinator and schools selected were provided with a formal letter, outlining why these sites were selected, the interview process at the site, time required for participation, details of an honorarium for time spent (a \$20 gift certificate), benefits to the sites and district, and the format for reporting of results. Written consent was obtained first from the principals of each school, and informed consent was obtained for all participants at the time of the interview.

Interview process. Data were collected through face to face interviews conducted by the primary researcher. A CIT introductory letter, along with the questionnaire, was sent out prior to

the interview. Providing materials in advance allowed the participants with time to reflect upon their experiences and served to reduce possible presentation or response set bias. All interviews were conducted over a two month period by the primary researcher. With the permission of the participants, the interviews were tape recorded and transcribed to facilitate thorough and reliable discourse analysis (Butterfield et al., 2005).

Data Analysis

Transcription and Extraction

An independent and experienced transcriber was employed to complete all transcriptions. Following the full transcription of the interviewed tape recordings, the primary researcher used a manual method described by Butterfield et al. (2009) to organize the raw data. First, the raw data were placed into a file folder with individual interviews separated by tab dividers. The interviewer then used color coded notes to delineate the diverse elements of each interview, such as CIs, source, and contextual data. Two separate colors were used to differentiate helping and hindering categories. Next, distinct CIs were demarcated using a specific coloured pen. These extractions represented the behavioural statements (incidents), together with examples, context and source (Butterfield et al., 2009). All extracted CIs were then cut and pasted onto separate cards and marked with an identifying participant number. Next, the cards were dichotomously sorted into beneficial and hindering piles and marked accordingly.

Descriptive Validity

Four methods were used to verify the accuracy of data collection according to procedures outlined by Bedi et al. (2005), and Butterfield et al. (2005). First, to serve as a fidelity check on the interviewing process, an expert in the field of CIT methodology analyzed the transcripts from the first two interviews to confirm that no leading questions were being asked and that an

objective protocol was consistently followed (modified from Butterfield et al.). Feedback to probe for more detailed behavioural examples and establish clear relevancy were incorporated into subsequent interviews. Second, Flanagan (1954) advised researchers to conduct interviews to the point of “exhaustiveness,” in which participants ceased to generate new CIs or CIs in need of new categories. To ensure exhaustiveness of data, a working table was created, in which CIs were added after every three interviews to monitor the number of new categories added with each subsequent interview (See Appendix D). This process established that saturation, a point at which no new information is being added, was obtained after the first five interviews. Further, at the end of each interview, a summary list of CIs manually recorded by the interviewer were read back to the interviewee in their own words, to allow them the opportunity to add, modify, or clarify a CI. If the discreteness of each CI was unclear, the interviewer asked for clarification. To ensure that the CIs were extracted accurately (i.e., that the transcription was divided into unique CIs correctly), a graduate student with background in qualitative research was given a random sample of 25% of the transcripts (four transcribed interviews) and asked to conduct an independent extraction of CIs to estimate a general level of agreement. Initial results indicated 96% agreement, which upon further discussion was raised to 100%.

Coding Categories

Initial coding entailed an examination of the similarities and differences among helping CIs (Butterfield et al., 2009) using a process similar to open coding, where data is segmented into categories of information best representing the “persistent ideas” (Creswell, 1998). Extracted CIs were read and reread across participants to determine patterns, categories, commonalities, and differences that formed the preliminary categories. Thus, preliminary formulations of categories were based on the intuitive and inductive clustering of incidents by

the primary researcher. CIs containing similar words, phrases and sentences formed similar emergent categories. In this process of open coding, the language of the participant is pivotal (Creswell). An approach Woolsey (1986) found to be helpful during this beginning stage of analysis was to consider the general context (circumstances) and the source (what or who really made this event so potent) of the information provided. Grouping CIs citing similar contexts and sources aided the researcher in creating unitary categories.

As suggested by Butterfield and colleagues (2009), coding extractions into categories was done in sets, consisting of three randomly chosen interviews. Following this first extraction, the next sets of interviews were analyzed. When new incidents were added, it became necessary to merge and reconceptualize several categories, which in turn lead to modifications to the level of specificity. The appropriate level of categorical specificity was determined by looking at concepts that were accurately representative of the data but had some degree of mutual exclusivity. The theoretical and pragmatic utility of the categories were also considered (Flanagan, 1954). For instance, the decision to keep related categories separate maintained a level of specificity that may better inform practice for policy makers, administrators, and educators. As CIs clustered into common groupings, they were grouped under specified headings (e.g., Use of Data), and the meaning the participant attached to the events were pasted on the back side of the card (i.e., the “how” and “why” this event was significant to sustainability).

Interpreting the Data and Reporting the Results

Trustworthiness of Data and Interpretations

Through a strategic process of collaborative analysis with experts and participants, only the categories that most accurately explained the persistent ideas were selected to summarize the

information collected. Though the process of coding data into distinctive thematic units is inherently subjective, five steps were taken to assess and secure the trustworthiness of the current findings (as recommended by Butterfield et al., 2005).

First, expert feedback on the appropriateness and utility of the categorical titles and operational definitions was obtained from a PBIS authority, Dr. Kent McIntosh, who is familiar with the construct of sustainability as it is currently understood in the research literature. Through a process of discussion and revisiting the original data set, it became evident that certain minor changes to the categorization scheme would better represent the data. Specifically, four categories were merged into two categories to better fit the data and strengthen the mutual exclusivity of the categories (i.e., Coaching was subsumed under Access to External Expertise, and School Key Leaders was subsumed under Staff Ownership). Overall, expert feedback confirmed categories to be consistent with research models advancing in the field.

Second, results were compared to categories in the existing literature base. This credibility check involved assessing agreement between the emergent categories and the current research regarding theoretical models of sustainability (Butterfield et al., 2009). The majority of elements previously articulated in the literature review (e.g., organizational elements, leadership, ownership, efficiency, effectiveness, priority, and visibility) were reflected in the results obtained (Baker et al., 2009; Bambara et al., 2009; Ervin & Schaughency, 2008; Fullan, 2005; Santagelo, 2009).

The third verification step involved calculating interrater agreement for sorting CIs into categories. An independent rater, a published researcher in qualitative educational research, sorted the randomly selected CIs (25%) into the thirteen categories constructed (Anderson & Nilsson, 1964). A coding protocol was developed and provided to the independent rater along

with the category titles and a brief description of each category (See Appendix C). The independent researcher then sorted the cards into the categories. The interrater agreement was calculated and determined to be 87%, which is considered to be strong according to Anderson and Nilsson, who suggested a minimum agreement rate of 80% or higher.

The fourth accountability procedure, a member check, was conducted to examine the interpretive validity of the CI extractions and formulation of the categories. Member checks establish the trustworthiness of the researcher's interpretation with the intended meaning of the participant (Bedi et al., 2005). In the current study this was conducted as a more general members check as opposed to an individual members check. Specifically, all participants were provided with the comprehensive list of the emergent categories headings, with a brief explanatory paragraph and asked a series of questions: (1) Do the category headings and descriptions make sense to you?, (2) Do the categories capture your experience and the meaning that the incidents had for you?, (3) Are you surprised by any of the categories? (See Appendix E). These questions were designed to evaluate the overall consistency between the researcher's interpretation of the data and the participants' perceived meaning of the events. In all, 71% of the participants responded to this questionnaire. Of these participants, all but one indicated that the categories resonated with their experiences. The participant who did not agree with one category heading suggested a more appropriate heading which was then considered and determined to be more broadly descriptive of the category CIs, so the category was renamed. Feedback from this same participant indicated that one category (Priority) should be separated into (District and Provincial Priority); however, the participation rates for provincial priority would not have been high enough to establish its significance. To the third question, this participant found one category surprising, Conflict of Personal Beliefs. It was this person's

perception that the category as specified did not fit within her experience, which makes sense given that her CIs did not contribute to this category.

The final step to assess trustworthiness was to set a minimum participation rate in a given category. Flanagan (1954) asserted that a category was valid only if “significant frequencies” of CIs are reported under that category. For this study, categories were deemed valid only if at least 25% of the participants reported a critical incident in that category. A chart adapted from Butterfield et al. (2009) and Borgen and Amundson (1984) was used to document that this criterion was met across all categories in the current research (Table 3).

Chapter III: Findings

In the following section, the results of the study are presented. The titles and a brief description along with pivotal quotes of the summative categories are provided. The categories are arranged in a hierarchical order, from greatest to least, based on number of CIs cited and the participant rates within each category (Table 3). Two categories exclusively representing hindering events are presented at the end of this section.

Table 3.1 Critical Incident Categories (Butterfield et al., 2009)

Category	Helping Incidents (% of Total Respondents)	Hindering Incidents (% of Total Respondents)	Contributing Participants	% of Total Respondents
Continuous Teaching	21 (88%)	3 (12%)	15	88%
Focus on Positives	14(82%)	2 (6%)	14	82%
PBIS Team Effectiveness	14 (82%)	5 (18%)	15	88%
Staff Ownership	22 (76%)		13	76%

Category	Helping Incidents (% of Total Respondents)	Hindering Incidents (% of Total Respondents)	Contributing Participants	% of Total Respondents
Adaptation	20(71%)	1(6%)	12	71%
Community of Practice	17 (65%)		11	65%
Involving New Personnel	13 (65%)		11	65%
Use of Data	13 (65%)	3 (12%)	11	65%
Access to External Expertise	16 (59%)		10	59%
Priority	8 (47%)	9 (47%)	9	53%
Administrative Involvement	7 (41%)	12 (53%)	13	76%
Staff Turnover		10 (47%)	8	47%
Conflict of Personal Beliefs / Mistaken Beliefs		17 (82%)	14	82%

Continuous Teaching

CIs within this grouping refer to consistent re-visiting and re-teaching expectations and prosocial skills through classroom lessons, demonstrations, assemblies, presentations, regular reviews, and visuals highlighting positive expectations posted throughout the school. According to participants, seeing and hearing the expectations through various modes promote a consistent, unified PBIS culture within schools. The following quote captures the richly detailed happenings related to the process of ongoing regeneration. This quote is typical of other interviews, where repeated references are made to developing of a common language across school settings and stakeholders in the institutionalization of practices.

that language is embedded in the school . . . and it's like permeating into the community (e.g., PAC Meetings; service delivery around . . . kids, babies toddlers, preschoolers coming with that language) . . . the whole language of expectations . . . they all have an idea of what's expected at the school (Participant 5).

Participants expressed that the process of continuous teaching focused and operationalized the aim and daily activities of PBIS. For them, the explicit and ongoing communication helped their schools move forward with a collective purpose.

For our kids common language and common understanding are the two biggest things that they need to have. They need to know that when I talk to them at that school about [expected] behavior that we're all talking about the same thing. One

of the major things that we continue to do . . . is a re-teaching of the matrix to our students. So we were doing a re-teaching of the matrix in September when the students first came back to school. So we did actual rotations with the kids moving through the actual places in the school that the matrix addresses with people on the staff giving retraining. I think that it's important that the language is put in front of kids in a way that they can see that it's concrete and that was why we didn't just have classroom teachers say, okay, in the hallways you need to remember to do blah, blah, blah. So we actually physically took them to the places in the school where they had to be able to use the parts of the matrix. So someone was doing the training in the hallway, which meant they were given concrete examples of your behavior in the hallway. The gym, when they came into the gym for assembly . . . gave them concrete training there about the expectations when they were in the gym. And I think that it was the practice thing and the talking together, had they just had the talking it probably wouldn't have stuck. And quite frankly I think the big piece of it for me was that it was not only for kids. It was for staff (Participant 8).

As illustrated in the above quote, ongoing teaching and guided practice serves to clarify misinformation for students as well as staff. Participants recalled that teachers and students were actively engaged in continuous teaching, as exemplified through the words of Participant 10, “. . . demonstrations . . . we practice it . . . It's very meaningful. Kids get involved . . . reactivating the matrix helped PBIS permeate the community”. Participant 15 elaborated on this point.

we all have the matrix and we're using that language together . . . the fact that parents trust the system, students trust the system . . . It builds that sense of everybody is, you know, doing it, it's consistent, it's school wide language and it's part of our culture. And so if you're on staff you feel like you need to be a part of that culture.

Not surprisingly, a lack of continuous teaching was described as a hindering event. With a lack of review of core expectations and procedures, staff and student behavior can regress, as is illustrated in this incident, described by Participant 8:

when we didn't do that [re-training] . . . we saw a greater increase in negative behavior . . . kids running in the hallways . . . teachers reacting . . . it became apparent that staff were contributing to the problem . . . so at that point we did a re-training for kids and staff . . . we said, what is our expectation, how are we communicating . . .

In short, continuous teaching, reported by the vast majority (88%) of respondents, was perceived to significantly enhance PBIS sustainability.

Focus on Positives

Focus on Positives refers to the experience of rewards, seeing positive outcomes, and receiving positive feedback and/or recognition, both for students when using prosocial behaviour and adults when implementing PBIS. This category includes the importance of keeping reinforcement potent. Within this category, helpful incidents where students received acknowledgements and rewards for rule-following behaviors were identified.

So if you were a kid that needs immediate gratification you can take two [acknowledgment tickets] and buy a pencil. But if you were a kid that's a green zone kid that gets a lot of [acknowledgment tickets] then you have the opportunity to save them up and buy something big. You can buy a hoodie, you

can buy lunch with the principal, so it's really giving the kids a double hit for every single [acknowledgment ticket] because the first hit is they got the [acknowledgment ticket], they got the acknowledgement but then they're getting another opportunity to be reinforced by being able to trade it in for something at the store. And that has been major, like every kid has now bought into the [acknowledgment tickets] because there is something that every kid wants out of that store . . .not getting positives at home . . . they need a second hit (Participant 4).

The participants reported the perception that using PBIS reinforcers occasions student change, and observing that change occasions adults sustaining these practices. Numerous respondents, when asked to recall an event that helped sustainability, noted detailed and concrete examples of student receiving incentives as important. "Well it's all about children, positive reinforcement of children . . . the positive behavior growth for the children. That's it. If we removed it, where would those children be?" (Participant 9).

Positive incentives that occur daily and school wide provide conditioned stimuli to maintain practices across multiple times of the day and settings. Furthermore, when teachers experience and recall positive outcomes associated with PBIS, it reinforces adult commitment to ongoing implementation. Teachers reported seeing a difference in individual students as a motivating factor.

I see small changes, like the kid we're talking about here. We see small changes every year. Makes a person feel like we're doing what is right and carrying on. I think one of the other things that I've noticed is that some kids come here with their problems and they don't find as many problems here. Like we had one boy

move into this school about three years ago, and he had this little record from his other school and so he was classified as [a child with] severe behaviour. And we've had school based team meetings on him, and of course we do the [PBIS] stuff... when he does something we give him a [acknowledgment ticket]. He feels comfortable in this school. His behaviours have lessened. In fact, there are lots of kids whose behaviours have lessened since when they first came to where they are now (Participant 11).

This phenomenon was also reported in situations where desirable outcomes were noticed by key stakeholders and the larger community outside the school. The event of schools being overtly recognized for their accomplishments also was noted as beneficial. Positive feedback from the district being asked to present at networking meetings and conferences recognition of success in many vignettes appear to be a primary motivator to continue to preserve practices.

We had an assembly, it was a grand reopening of our school and there were dignitaries like the two MLA's were here and we had some school district personnel . . . we invited all our preschool, our Strong Start, all of our groups downstairs, it was a big assembly. And the kids did really, really well. And it was, it was commented on by the dignitaries in the school district of how well the kids responded to the assembly . . . we use that to remind ourselves that we have difficult days and we have tough kids and every single day is a challenge in our classrooms with these kids who are struggling, they come from very challenging backgrounds, but we do a good job of demonstrating caring and being socially responsible ourselves. And I think those kids, you know, they've come a long way (Participant 4).

One school . . . who had a really bad reputation in the district and after about a year and a half of implementation they did a presentation to the board that showed the stats and their changes in behaviour and discipline stats and so on. It just blew everybody out of the water like . . . actually changed the reputation of that school, right? Well I think that the success at any one school—you know, like going to the board meeting and showing their data—was really encouraging to other schools who are also involved in [PBIS] to say, yeah, you know what? We have noticed the same thing: our successes (Participant 7).

We had people come into our school . . . we got a lot of positive feedback, COC's [Chamber of Commerce] and people from the community come and they're just amazed . . . District, community, people from the community and district people, [substitute teachers], most often, the feedback is very, very good. Well, the people, if people find a very positive environment with children with, they're very respectful and so on, responsible, then you want to . . . It reinforces that what we're doing is right and we don't want to lose that, we want to keep going (Participant 10).

We made a commitment to become a fine arts school, and so we opened our doors to one hundred and forty more students . . . we did the planning . . . direct instruction . . . it was seamless, it was easy, they just came, and we empowered them . . . even some of the more difficult kids we took in, it was like, oh wow, they came with thick files but nothing happened. And when they saw that is was seamless and easy, it was a validation that it [PBIS] is working. I think that was

one of the most important things—that it validated what they had been doing up to that point (Participant 14).

Commonly, incidents cited in this category described a reciprocal interaction between the perception of positive outcomes and sustainability. According to Participant 8, “people continue to have belief in the system so they believe that what we’re doing is actually making a difference because we see change in behavior.”

Actions of keeping reinforcers broadly accessible and potent in order to be effective were noted to be important. A few teachers cited incidents in which students without high risk behaviours rarely were reinforced or other situations where reinforcers were no longer novel or effective, which hindered sustainability. The lack of novel reinforcers could also relate and overlap with the category of ongoing adaptation.

As with the previous two categories, 82% of the participants cited a focus on positives as being critically significant (Table 3). As experienced by the interviewees, a focus on the positives is a strong operant agent of sustainability, not only for teachers and students, but for the system as a whole.

PBIS Team Effectiveness

This category refers to the organizational structure that operates within the school and involves regular meetings with a format, decision making process, and note taking. It is a forum for discussing behavior concerns; it is a vehicle to train and in-service staff, a working committee that reports back to larger staff and a place to reflect on one’s practice. PBIS teams that are well-formed hold high profile with responsibilities, and accountability to get the job done were identified as beneficial. One participant used the metaphor “... it’s the horses pulling the cart ...” to capture the true essence of the PBIS team’s impact on sustainability. As seen in the following

excerpt, effective PBIS teams provide the organizational infrastructure to activate the PBIS framework, and ensure follow-through at the school-based level. Meeting regularly was recalled as an important event.

we had somebody who always kept notes and we always followed the who's here, what has worked, review what worked, what are responsibilities and what's our plan and whose going to follow it out? ...everybody has input. The members of the [PBIS] team have accountability to each other and the team having accountability to the school because if you say you're going to do something then you need to make sure that happens (Participant 13).

According to participants, effective teams that meet regularly and have a mechanism for disseminating information, goal setting and evaluation facilitate sustainability.

One of the events would be that we decided to have monthly meetings that we have a plan in place . . . each meeting we kind of revisit what did we achieve from last time, what, where do we need to go, anything that wasn't covered and do we have any new goals that we're trying to set or implement in the school so that . . . we do have monthly [PBIS] meetings and we try to do those before our staff meetings so that we can relay the information to the staff members who can't be there or who are involved or, you know, affected by the decisions of the [PBIS] committee. And so that's really made a goal oriented part of the committee where we just don't meet, we kind of revisit and we see what we talked about last time and where we're going. I think it's the piece like looking at what we've discussed last time and our success or, if there's something that we

didn't get to and making sure that we're making goals that are actually happening (Participant 15).

As expressed by several teachers, PBIS teams that meet consistently and have a broad representation of staff members keep the conversation of PBIS going at the school level, allowing people the space to voice concerns and share insights.

Consistent with this category, hindering CI's identified a lack of organizational structure, such as no regular meetings, no governance, poor collaboration or fragmented team members as a barrier to PBIS sustainability.

If you're not physically meeting you can't get anything done. And it's compounded by the fact that this year we, um, due to this fragmentation and not being focused on the same goal we had to create very formal guidelines and systems around our actual team and how it was going to meet which we had never had to do before, because in the past everyone had just kind of found their little niche and it worked as a team (Participant 11).

According to participants, when team roles, format, and activities are not well defined, this threatens sustainability. Taken as whole, the vast majority of participants (88%) cited functional teams as a critical happening to the preservation of PBIS practices.

Staff Ownership

This category refers to the idea that PBIS is teacher generated and teacher owned, as opposed to being imposed by district or administration. Critical happenings in this grouping center on teacher buy-in and a high level of involvement in planning and implementation,

including designing and revising the school-wide plan. This category also includes lead teachers having a strong voice, passion, and commitment to sharing resources and feedback.

As a consultant you could be an outside person coming in and, you can be giving information or advice, but it won't necessarily take shape unless you have those key leadership people . . . having those key kind of people who had very good leadership skills, had a strong belief in [PBIS]. I think you can have the conversations, but if you don't have those people it's not going to be as effective (Participant 2).

When asked for more details, the respondent replied,

So it's the staff saying we need some time to talk about this or saying, we need to do this or that . . . they were able to come to me [the consultant] and they had questions, you know, how do we do this, what have you done in other sites? And then they would take that and kind of drive it, you know, into their school and be real advocates for it. This is important for our school, so let's talk about it. Let's move along that continuum of implementation. They were the real drivers behind that. And so they had a staff that was willing and then they had the people that were willing to take that on (Participant 2).

Participants often identified school champions, implementers who keep staff members accountable, build capacity in staff members, and follow through with implementation tasks. According to those interviewed, school champions have knowledge, history, expertise, collaborative skills, credibility, and drive, which enhances implementation fidelity and durability. One participant shared a vivid recollection of PBIS being a ground up movement, in contrast to a mandated, top down process.

It was part of the culture of the school, so I would be able to talk to [lead teacher] and kind of run things by her, and she was there to build capacity within me, and as I was taking it over, you know, I was interested in it, because I wanted some leadership opportunity, but I just tried to build capacity in other people.

Delegation by key people is important allowing us to, as a fact of leadership, [the principal] allowing us to have the freedom to do that, not having her talking from the top down was important. If it is given to you from the principal, then there is an automatic reaction, the question is whether I have to do it or I don't have to do it. I think that a lot of it came from the staff people, the people in the trenches [who] are dealing with some of the behaviours. It was teacher generated . . . coming from a teacher, and there is a reason for why you're doing it, because it makes my job easier, because I can tell you as a colleague, hey I'm doing this and it's someone new. I can say, look, I'm doing this, and look at all the stuff that I have . . . I'm using this system. It's going pretty good. Staff driven. Not being told to do it (Participant 12).

Despite changes in contextual variables, including staff and administrative turnover and changes in buildings, core staff members were helpful in making transitions because of their wisdom, passion, and vision.

there was enough of us who were dedicated to make sure that the transition happened—that [PBIS] would happen no matter what—because our initial core group had been, we knew what it was like before [PBIS] . . . to have people who, who saw the overall picture and although people have come in and left, you still

had to have the people who had the vision of what it could be and maintain it . . .

(Participant 13).

Most participants iterated that although one or two people may champion PBIS, if the staff is not committed and don't see it as important, it will quickly disappear when those champions leave. Overall, staff ownership was highlighted by 76% of the participants.

Adaptation

This dimension refers to the activity of maintaining core elements while adapting daily practices to make them more efficient (e.g., simplifying forms) and effective (e.g., changing a reward system). This category also includes customizing PBIS practice to “fit” local school context (e.g., local cultural translation of expectations, adapt practice to demographics) or changes in the school environment to keep practices relevant. Incidents in this category involve re-evaluating systems and bringing in new ideas to rejuvenate staff interest and enthusiasm.

We decide to try different things, not just doing the same things our committees have always done, because kids get tired of it, and the staff get tired of it, and then you lose the power of being inspired, finding things exciting, so we painted the walls with things from the matrix, . . .problem solving [steps] by our water fountain . . . writing songs . . . we keep adding to the programming (Participant 15).

Practitioners explained how changing incentives and embracing new formats recaptured teachers and students, motivating and recommitting them to positive action. If the fit is good and produces positive outcomes, then the practice continues, as illustrated in these quotes:

We're constantly having to re-evaluate both our systems and how those systems match with the student body and the behaviours of those students... a specific

example is every year we re-evaluate the [acknowledgment tickets] (Participant 4).

We were having difficulties . . . so we looked at refreshing things, like what was working in our matrix and what wasn't working in our matrix? We didn't review and change the matrix every year, but I would say it went through a fairly major revision after about my third year (Participant 8).

When asked how specific adaptations influenced sustainability, participants commonly linked these events to increasing usability and efficiency. Participants frequently reported that modifying procedures increased compliance and consistency with data collection, resulting in enhanced outcomes.

We revised our behavior referrals because they needed to be more consistent, and we had problems with sort of like noon hour supervisors, administration, and teachers. The three different groups that use them were not using them consistently. And so the students were getting mixed messages about what they should or shouldn't be doing in different parts of the school. So revising it to just different wording in a couple of categories, those kinds of things helped people fill them out easier and keep them more consistent (Participant 6).

When procedures were made easier, it reduced the efforts required increasing fidelity. “. . . changing some things on the [acknowledgment ticket] . . . it was taking too much time to hand out . . . now there's a little sentence and check box to make it simpler for teachers to fill in. Well, it helped in the sense that it was easier to hand out a [acknowledgment ticket]” (Participant 11). Here the simple adaptive event of changing the form increased usability. Participants also relayed specific situations where practices

were being refined and adaptations made in response to unique demographics, mobility issues, and community needs.

Respondents also gave examples where ideas used to deal with behavior were generalized into academic strategies. Although teachers noted the effectiveness of ongoing adaptation, they also acknowledged the energy it takes to keep this process evolving.

It is a struggle to keep it fresh and exciting for the kids. It's hard to think of new things that you could change that still keep everybody along the same lines, different activities and different ways of wording stuff to keep everybody interested (Participant 3).

Events also revealed that teachers naturally seek novel ideas, and schools are inundated with new initiatives that may compete with current approaches, thus threatening sustainability of effective systems. Adaptation actions that integrate local initiatives were perceived to be helpful in sustaining effective approaches.

Being able to see how things align? That they're not different, because people will say we can't do that because we're already doing this . . . So at a school level I'll go back to the Circles of Care. This could have been something that was a separate project but instead we looked at who we are as a school? And, you know, we've been implementing for about a fourteen year period now at that school and being able to look at that and say who are we as a school? So looking at the Circles of Care . . . it was something that was brought in by two teachers, lead teacher piece again, they were really interested in doing it. I had some discussions with them around what does it look like, what's behind it? And

behind it was positive relationships with, between students and between teachers and students. And I said well that's exactly what we're working at for [PBIS], it's all about positive interaction (Participant 6).

The proverbial revolving door of "in with the new and out with the old" can hinder sustainability, unless thoughtful efforts to braid initiatives keep fundamental frameworks stable. Although many practices were adapted over the years, participants noted that the primary features were maintained. "So even though we maintain some of the same core things we look at new ideas, and that's important to get people energized, but it, it's just the evolution of what [PBIS] looks like"(Participant 2). In sum, adaption was a frequently mentioned category by the majority of participants (71%), with the CIs representing a substantial portion of the total CIs collected.

Connection to a Community of Practice

Events in this category describe the idea of networking. In this category, helping events included an annual provincial PBIS conference and district networking sessions engaging implementers in multi-level dialogue. Forums for presenting, sharing, and listening to others' ideas, resources, and celebrations kept the conversation of PBIS alive. According to participants, networking consisted of both philosophical and pragmatic cross pollination, creating ongoing professional development, buy-in, reflection, and rejuvenation across a range of PBIS experience levels. Incidents also refer to networking as a helpful buffer against the obstacle of staff turnover. Staff reported inviting new teachers and principals to the meetings and coming away with strategic plans to focus PBIS efforts.

Insiders also recognize the role that a community of practice plays in refocusing staff and keeping the PBIS as a staff priority.

. . . people look forward to, you know, just being re-energized, some of the new stuff that's coming out around the framework of [PBIS]. So [the PBIS conference] has done a really good job of keeping that profile too . . . keeping it on the radar and that it's important. . . schools get together and share, I love that, the [PBIS] forum, because you get other schools that come and share what they are doing, some of their successes, some of their action plans for the year . . .or revisiting something . . . or a priority at the school (Participant 11).

Networking facilitates the developmental process of change. Practitioners faced with uncertainties of their own practices were able to access social networks to acquire new information. One participant reported that an important aspect of networking events was that content was targeted at each developmental stage of PBIS implementation. In that way, each participant could access information that was appropriate for their level of experience and implementation.

[The PBIS conference]provided the training . . . also provided a research base . . . there's evidence and research . . . it was presented in information sessions . . . lots of schools went every year for training . . . getting a refresher . . .getting people motivated . . . the second thing is the developmental process. . . It's a development, so you work on something, so alright you get that in place and then, you know, it's really like creating and recreating a system . . . where . . . it's evolving and it's changing. And now there's new ideas coming in and so it's an opportunity . . . [to] get new ideas, because when you're at the beginning stages of development, you're really not paying attention to some of the later stages of development . . . those things are kind of irrelevant . . . what they saw just at the right time . . . information, training, and reflection (Participant 7).

Having this ongoing dialogue also keeps PBIS on the radar and sets it as a high priority in the schools. Structures like district networking and the annual provincial PBIS conference provide a forum where ongoing discussions can take place; where people can talk about the next steps for implementation. In groups, people can brainstorm ideas and troubleshoot problem areas. Exchanging information and ideas with other schools, sharing data, hearing how other school teams have implemented, and sharing concrete examples of practices (such as matrices and lesson plans) provided a vehicle to implement and refine existing practices. According to participants, new input and sharing of ideas created synergy. In an attempt to make meaning of the happenings in this category, one participant reflected, “. . . it was more just having the opportunity to collaborate with other PBIS schools. I don’t think it was really a matter of what that collaboration looked like. I think it was the event of the collaboration that was valid and important” (Participant 4). Here the sense of being connected to a larger community of practice, a collective efficacy, emerges as being important to sustainability. In total, 65% of participants reported ongoing networking as a helpful activity toward continuation of PBIS practices.

Involving New Personnel

This category refers to bringing in new staff, with new ideas, a fresh perspective, keenness, and energy. Participants noted that recruitment of new teachers onto the PBIS team builds capacity and increases immersion into the school PBIS culture. New staff members bring in new experiences, energy, and an opportunity to strengthen and revitalize local expertise, which supports continued implementation. Systematic recruitment of new staff into the PBIS culture, structures, and practices appears to enhance ongoing capacity. One participant recalled being brought on early as a team member. “The first day that I walked in, this is what we’re doing, the kids are good, we have [school PBIS pride]” (Participant 6).

Another participant vividly remembered,

One of the staff members that came up to me when I first came to the school gave me a binder and explained everything in the binder even before I was full time . . . So she gave me the binder, showed me the forms. So very quickly I was able to understand the expectations that were being taught and kind of use those throughout all the classes in the school (Participant 3).

It was cited that new staff are often receptive to becoming involved. Being on the job posting for positions in the district, new personnel expect it and are greeted with “this is a PBIS school ... Here’s what we are about”, so that the first thing a new staff member asks themselves is “what can I contribute?”

So they came on board and they quickly, they were much more immersed into [PBIS] culture, you know, by being on the committee. But it’s also when they’re taking the initiative to get up to speed . . . it’s part of every job posting . . . It’s part of the culture, it’s part of what we are, and when you hear about [PBIS] structures . . . you need to be familiar with them (Participant 5).

Administrators and teachers consistently recalled times where enlisting someone new on the committee was pivotal to sustainability.

They [new staff] want to maintain what was already set up. New people are usually interested in [PBIS] and want to be part of it . . . they come on board quickly . . . first year teachers, they’re overwhelmed, but we kept saying, you know, we’d love to see you at a meeting, you know, it would really help out. And so when they go there it just automatically includes, “you need to start understanding how it really works,” and they got involved in writing one of our

Christmas skits . . . it helps them too . . . and so we kind of helped them through the whole thing of [office discipline referral] forms are data, [office discipline referral] forms help you help them, don't feel bad about writing them for the kids and their behaviours because it's going to help you make a plan that's effective and those kinds of things (Participants 15).

Participants reflected that it was important with high staff turnover to be proactive and have plans in place to make sure that new staff understands PBIS – staff who are unfamiliar and have not personally experienced the success might not want to participate. Mentors were used to help new teachers learn the expectations and how to fill out office discipline referral forms. Having a proactive mechanism for bringing new teachers into PBIS was perceived as beneficial. “Next year we will have a lot of new staff. We have already begun to think about how we are going to do the training . . . go over the why, how, and what is expected . . .” (Participant 12).

Overall, a significant number (65%) of those interviewed related incidents where incoming personnel were keen to assist in implementation and quickly embraced the dedication they saw from other staff members. Several descriptions in this category emphasized the importance of having a fresh perspective on the staff. “Over time . . . new people who had fresh lenses brought in new ideas” (Participant 8).

Use of Data

This cluster relates to having observable and measureable information to track patterns of both PBIS implementation and student outcomes. Data facilitate communication and accountability between staff, the school-based team, the school board, and parents. Within this category, participants identified acts of data collection as supporting high levels of

implementation fidelity. For example, collecting and using data required teachers to focus on critical PBIS activities and guiding principles.

When we introduced our SWIS data, we could pull up many more dimensions of the behavior. One of the main things that came out of introducing SWIS was we now were asking the adults in the building to look for student motivation, which was something we had not been addressing prior to that. It certainly helped us once again to be able to target our interventions. So we were able to now look at time frame, location, motivation, even the number of referrals, and who they were coming from (Participant 8).

PBIS strategies were developed in response to examining office discipline referral data, and teachers were held accountable by ongoing measurement procedures. Several CIs highlighted how data use served to structure meetings and regular review of PBIS activities.

The fact that at every meeting we'd pull the data out, and we look at it, and we see as the committee where the problem areas, for instance, the hallway, you know, if there's an increase, okay, what's contributing to that, how can we make this, the [office discipline referrals] go down? Or what do we need to do to make sure we're writing [office discipline referrals] to change behaviour? (Participant 14)

Collecting data leads to increased implementation fidelity; data collection focuses staff efforts on implementing the most relevant and effective strategies for that situation.

We look at the data to see who we need to be talking about . . . The data is also very important for the core group because the [PBIS] team can come back to the

data because that's where a lot of the decisions as to where we're going to target our interventions can be made (Participant 13).

Review of student outcomes helped schools plan future activities “. . . data speaks to the staff, ‘Look what we’ve accomplished; look where we need to go.’ It keeps it impersonal and really clarifies decision making for future and how to celebrate the present and past” (Participant 1). Use of data facilitated school accountability and accurate communication between stakeholders. Practices that are perceived to be useful are more likely to be maintained, as shown in the situation cited below.

A specific event . . . had we not been an [PBIS] school we might have found it very, very difficult . . . was a district complaint, it was a complaint from a parent to the district level and beyond, and we had the data to support the positions of all the teachers involved, and without that data it might have been a very tough, tough process. . . we're always thinking about how useful this information is when we go into school based teams . . . we're able to present parents with . . . [longitudinal office discipline referral] data . . . that it's not a teacher picking on a student, but that it's a pattern of behavior that's existed over time. So that again backs us up and helps us to make some plans for that student with and helps parents to understand that something is up, that it's not just imagination or a personality conflict . . . I think we say, okay, well, that was useful to me. I'm going to keep on doing this, I'm going to keep on writing [office discipline referrals], because . . . if you know that further down the road you're going to be in a school based team meeting with this family, you'll think, “well, maybe I will jot that down” (Participant 16).

Understandably, practices that are perceived to be useful are more likely to maintain. Events related to continuous measurement and data use were recognized as beneficial by 65% of the participants.

Access to External Expertise

This category refers to having contact with a recognized researcher, a consultant, or a trained coach bringing in outside information and tools. It encompasses key leaders with outside expertise presenting at staff and district meetings or training sessions and providing feedback and validation to PBIS schools. When systems become too narrowly focused or stagnant, the voice of an outside perspective can keep the system moving forward. The following two participants illustrated this key component.

It had been happening, but it had been let go... it's good to have outside feedback someone from the outside look in...because our vision had become narrow, we get too much into ourselves (Participant 13).

Research partnerships bring in relevant evidence-based resources and training for staff, increasing interest and motivation, making practices more effective and efficient.

His team came and gave us feedback that what we were doing was really working . . . our new research stated that, you know, maybe we should try this . . . you're accountable for what's going on (Participant 6).

In the experience of these participants, the exchange of ideas at a timely point helped grow the practice of PBIS.

It's having another resource . . . he brought SWIS and showed us how to use it . . . he gave us visuals to put up and the idea of [a PBIS] radio show. That's

something new that we didn't have before . . . someone who is respected in the field (Participant 12).

Bringing in special speakers can help revitalize a system by increasing ongoing buy-in. A credible source from the outside can stimulate re-investment.

Special speaker . . . was brought in . . . it helps get people on board so that helps get, you know, people interested and somewhat willing. . . that's having someone from the outside come in . . . you know it was a motivational piece. What can this do for you? . . . And getting people to say, yeah, that makes sense, and I think it's that shift (Participant 2).

Source characteristics, such as who delivered the message, also seemed to have an influential or persuasive role, as exemplified in this quote.

Listening to someone who you see his name on everything and you're like wow...associated with [PBIS] and sustainability you've seen that person's name on dozens of papers and conference notices sometimes it tends to give you more of a, yeah, I should probably listen to that guy because I am sure he knows what he is talking about and he's published...in journals...and [your staff are] familiar with the name. That's important (Participant 6).

Those interviewed cited that PBIS coaches, specifically trained to provide ongoing site-based implementation support, helped staff to trouble shoot, provide technical support, and evaluate daily practices.

The coaches . . . had a solid foundation on . . . implementation process, what are the steps that need . . . developing your clear expectations, you know, having a

coherent office referral process. How do you start to use some of the data (Participant 2).

I think this is something important, and we've been into other schools, and this has built more capacity within staff in the district. So I've been out to other schools, for example, and listened to them and talked to them about what they are doing and offered some knowledge I got from my coaching session. That definitely helps sustainability . . . kind of giving them ideas support suggestions of what they might want to do . . . And also to just let them know that I am around to help out in any way—to attend meetings, or look at data with them, or to do surveys with them. Or whatever it is to help out to make sure that it [will] last, because it is an important part of every school system (Participant 12).

According to insiders' accounts of significant happenings, coaches played a key role in ensuring that practices were implemented with effectiveness and efficiency.

I think another key piece is having a SWIS trainer in our district . . . that's a critical piece. Well I think when coaches go into the schools and can show . . . how to streamline data collection . . . (Participant 1).

For one participant, coaches work to link district and school administrations, teachers, and support staff so that the teachers aren't simply working in isolation, but instead are building systemic capacity. It is important to note that the experiences of having access to a key outside person with knowledge and expertise was mentioned as a salient factor by more than half (59%) of the participants.

Priority

This dimension refers to PBIS being in the spotlight, having a high profile within the district, or being provincially endorsed. Here, participants noted when district or ministry

policies make an initiative a priority (e.g., putting social responsibility in the curriculum, district goals, or school contract agreement), it provides validation and affects daily practice, funding, professional development selection, and accountability, which in turn affects sustainability. Respondents expressed the belief that having PBIS written into the district accountability contract sets it as a priority at the district level, which ensures that it can be viewed as important. Several participants indicated that PBIS needed to become a larger priority than just within individual schools; it needed an organized district structure. One district level participant reported the following:

. . . we continue to grow this . . . getting at a higher level in the district . . . higher profile is another piece to sustain it . . . we are in the district accountability contract . . . in the contract they have used SWIS as a data source for one of their goals . . . that it can be viewed as important . . . if it is not in that document, it can easily be dropped (Participant 2).

Teachers reported similar incidents centering on the category of district priority plans.

Schools and districts were required to submit plans . . . if the school goal was around social responsibility then it formalized the goal setting, the establishing objectives, collecting data, and reporting on it. It became part of the curriculum component . . . reading, writing, and spelling weren't competing . . . aligning . . . before that, it was kind of invisible. Having social responsibility in the provincial curriculum clearly establishes it within the whole educational framework. It was a critical event in validating schools for doing what they were doing . . . and gave them a context . . . it's part of what we should be doing at schools (Participant 7).

One district personnel member remembered meeting with the superintendent and assistant superintendent, to present the data showing the far reaching impact PBIS had on practice. That participant publically stated the importance of PBIS at yearly public events, so that school boards and trustees saw the impact of PBIS in the district. According to one administrator, priority is critical to ongoing training capacity.

If it's in the spotlight, there's more funding . . . it's more accessible . . . there's more speakers, there's more pro-D opportunities . . . release time for teachers to attend workshops, money for speakers . . . When it was very much in the spotlight, we were up to about four or five district trainers (Participant 4).

Other events cited illustrate that advocacy and integrating initiatives can keep the profile of PBIS high. In terms of competing initiatives, participants reported the importance of aligning new programs with the PBIS framework and how integration rather than replacement helps maintain what is already working well.

Participants noted that when new ideas come into a district, it was important to integrate them with existing practices and not throw out foundational proven practices to replace them with new practices. They noted that when relative value and visibility for certain practice wane, sustainability is threatened. Interviewees reported that when other new initiatives (e.g., restorative justice, academic assessment, literacy, and numeracy) are brought in, there are multiple committees with competing interests. The bottom line indicated by insiders is that schools do not have enough resources to devote to multiple agendas without integration of initiatives, and this multitude of initiatives then becomes a barrier. Changes in priorities translated to changes in capacity (e.g., funding, access to training opportunities, coaches,

educational assistants). The perception that initiatives are constantly in flux also hinders staff buy-in, as participants perceive that

. . . it's just . . . a fad, it's a flash in the pan . . . we're going to go with this one cause this is the newest trend . . . why would I buy into this. . . We want you to do this, and then you know, five minutes later, okay we've struck that one. . . I think [PBIS] falls into that category in some ways, unless it's done well in school.

We've given it some time . . . (Participant 12)

Events in this category demonstrate that failure to consider the issue of priority can negatively affect resources, professional development, and ongoing capacity. Inconsistencies in district policy priorities as the pendulum shifted in response to the larger political and social systems were identified by several participants as barriers. In all, 53% of the respondents mentioned critical incidents related to the category of priority.

School Administrator Involvement

This category refers to school administrators as potential internal maintenance agents, who can either help or hinder sustainability of school-based practices. Helpful incidents include administrators with a clear understanding of and active support for PBIS.

They're the leader of the school, and that's a really important person to be at the front, spearheading and taking it seriously. . . you need to have an administrator that's involved. Yeah, that we've had, always had an administrator on staff who either started it or carried it forward, so like when I first got hired here we had just changed administration and the new principal, who is our current principal was aware of [PBIS], how it worked and was behind the committee and part of the committee. And so I think that's really important, because they're the ones who

are going to be allowing programs and celebrations and assemblies and encouraging all those behaviours, and they're the ones who are going to find the time for [additional support and data collection]. So if they don't believe in it, they're not going to take the time doing it (Participant 15).

Participants also noted incidents in which the principal's ability to listen and respect what has been done was critical to durability of practices. Teachers expressed that PBIS becomes a priority when the principal is actively involved in ground level implementation, such as consistently using and promoting PBIS language, going into the classroom to directly teach expectations, and giving presentations to staff and community agencies.

The principal would work with the grade fours, fives, and sixes, which are the ones that are usually the harder to convince about [PBIS]. He would do one forty-five minute class a week, label this CAPP (like career and personal planning) but teaching them [PBIS] strategies and skills and talking [PBIS] language and that was very powerful for getting the message out to the intermediates but also getting intermediate buy in. There's something really powerful about an administrator that's in a disciplinarian role that's giving them that constant message . . . So then it also allowed the teachers to build on that. He believed so strongly in the philosophy behind [PBIS] and the common language and the positive language that the students are very aware that he's going to give them the same consequence and have the same expectations all the time (Participant 4).

The above narrative also makes the point that administrators need to have knowledge and skills in PBIS. Participants identified that administrators play a key role in encouraging PBIS behaviours, teaching expectations, revising systems, and supporting PBIS teams, as well as,

networking sessions. They noted that administrators' direct involvement in PBIS with teachers and students on a regular basis (e.g., teaching expectations, using PBIS strategies and promoting a common language) creates sustainability. Specifically, they mentioned that having an administrator who deals with discipline on the PBIS committee maintains consistency of the framework in day to day practices. Participants interviewed recalled principals encouraging the teaching and review of core PBIS components through assemblies and celebrations as helpful events. Participant 9 (a principal) recalled, "Two teachers and myself. We gave presentations in the gym to the entire student population. We gave presentation to parents in the evenings . . . and to gain extra funding, we made presentation to the school board." According to insiders, administrators enhance sustainability by sharing information, showing leadership and commitment at multiple levels.

Participants also noted barriers in this category, such as school administrators having limited involvement, a different philosophy, or misconceptions about the PBIS framework. The decision to put a new administrator into the building with a completely different philosophy was experienced as a barrier:

. . . they don't see the benefits, they don't see the history, they haven't experienced the success of it, so they don't understand the reasons we write [office discipline referrals], participate in refreshers . . . staff react to that, they feel like it's a personal attack . . . they will really pull away from what's important (Participant 14).

Administrators lacking an understanding of the rationale behind the practices were recalled by teachers as hindering events.

[PBIS] has gone up and down depending on who the administration is and whether or not they support the philosophy of [PBIS]. And I think the biggest indicator of that is whether they use the common language and the common expectations (Participant 4).

Administrators who are passive leaders (i.e., not unsupportive, but just not effective) also impede sustainability. A district administrator provided an example of how administrator inaction weakened ongoing PBIS structures.

Even though they might say that they support it, they are not setting aside time or setting aside very little time . . . At a staff meeting. So that means it might be the last thing on the agenda, or they would put specific time limits on the agenda (Participant 2).

For several participants, administrators' lack of in-depth knowledge hindered support for PBIS structures and procedures.

As a whole, 76% of the participants interviewed acknowledged administrative involvement as a significant factor in the continuation of PBIS practices.

Staff Turnover

This category refers to the hindering event of staff mobility. Staff turnover can diminish staff knowledge and skills in daily PBIS practices (e.g., continuous teaching, acknowledgement tickets, data-based decision making).

We've had so much staff turnover in the last two years, and it's sometimes like November and a staff member is like, "what is a [acknowledgment ticket]," and it hasn't been explained, and we just kind of assume that people are on board

(Participant 3). Not knowing the philosophy behind [PBIS] . . . the whole positive philosophy of positive language and clearly stated expectations (Participant 4).

Others noted the difficulty of ensuring that all staff members are committed, when there are many new staff with limited PBIS background.

. . . maintaining a critical mass of knowledgeable staff at the school and the district . . . how do you keep a core group of people who say yes, we all know what this means? . . . People leave and new people come in and then all you're left with is . . . the forms. . . You've got the forms, but you don't really have the substance of people who understand it . . . you lose training within the district (Participant 7).

Staff change-over, that's a hindrance, because as soon as someone leaves, you lose a couple of things...you might get somebody who wasn't embracing [PBIS]...you sometimes lose knowledge, or you lose someone who was part of the team who helped with things, and you had to replace them, you really don't know who you're getting, and are they going to embrace it or going to say, "no, no, you guys have a different philosophy" (Participant 12).

As illustrated in the next quote, when key PBIS champions leave, there is a potential lack of leadership, direction, weakening of implementation system structures or decision making processes.

So we had a brand new team . . . nobody had ever been on the team, and I felt like our leadership was just as uncertain as the rest of the people. . . people started losing the confidence to make decisions (Participant 3).

Another participant related a hindering incident of shifting of cultures to a time, “when a school loses that [PBIS] champion person that sort of kept a passion going” (Participant 1). Participants also cited incidents where temporary staffing arrangements were barriers to forming consistent teams. “. . . One day they’re on it and . . . the next day . . . they can’t be on it . . .” (Participant 5). It was also reflected that temporary or part-time staff can be reluctant to become part of the PBIS team. Not surprisingly, the departure of people who have been part of the critical organizational structure was frequently identified as a barrier to sustainability. A total of 47% participants cited hindering events concerning staff turnover.

Conflict in Personal Beliefs or Mistaken Beliefs

The category of conflict in beliefs emerged when participants unpacked the meaning behind events that hindered sustainability. First, the notions of different personal philosophies, cultural values, and beliefs, which led to different degrees of implementation fidelity, were discussed. For example, divergent beliefs in the areas of equity, social behavior norms, and rewards and consequences, were identified as barriers that often led to lack of engagement and poor implementation of practices. The following two excerpts are typical example of CIs cited under this category:

Having different rules in their classroom than what the clearly defined expectations are for the school. So a specific example is a school wide expectation . . . the dress code . . . one staff member doesn’t uphold those expectations or doesn’t have those same expectations, then that’s going to slowly

erode things . . . And it's also frustrating for the other staff members. .

.(Participant 4).

The teachers not being all willing . . . There was one teacher who didn't hand out any [acknowledgment tickets] . . . part of it could be their philosophies, some might have the idea that punishment is the way to go. And some of them find [PBIS] gives the kids too many chances. When he gets out into the real world, that's not going to happen (Participant 11).

Here we see the interviewee trying to make sense of the happenings that hindered the consistency of practices around delivery of positive reinforcements. Similarly, the following participants reflected how these differences in beliefs caused them to question the system and accuracy of the data.

“If they have a different philosophy and it doesn't fit here and they'll just do their own thing and that hinders the process of sustainability.” (Participant 15) “We're all different human beings, so we have different tolerance levels . . . it causes us some worry about whether the data is accurate . . . (Participant 16).

Specifically, participants reflected that positive outcomes over time require a shift in perspectives, where teachers begin to see behavior in a different light.

I think if you don't buy into the whole concept that catching kids doing the right thing will impact their behavior, that you end up focusing too negatively on negative behaviours. A school like [ours], which is an inner city school, has children who come from all different kinds of backgrounds and, you know, for me a philosophical belief is about getting to know children and developing relationships. If you think that children will behave simply because you are the

teacher or the principal, you are dead in the water in those kinds of schools . . . So there are still people in our system who don't believe that. If you come into a school . . . and you expect kids to behave a particular way without doing your part about teaching them how you want them to behave, they're not going to do it (Participant 8).

But the process of change in beliefs takes time, as indicated by this participant, “. . . it was really for them a developmental process and their own belief in kids and, you know how kids should behave or not behave.” (Participant 7) From one administrator's perspective, the belief that teachers should focus on academics while administration deals with behaviour can also be a barrier.

They just want to teach their reading, writing, and arithmetic . . . I think we have that feeling in our building—administration should do something . . . aren't getting it that it is a team approach—what do *we* need to do differently—that we are not presently doing . . . There is always somebody on staff questioning why the administrator doesn't do something . . . some disgruntled teacher wants to say, “Well, why that kid isn't being sent home” . . . So, then if we have [PBIS] at our school they say [PBIS] isn't working (Participant 17).

A second aspect of this category regarded mistaken beliefs about PBIS. Misconceptions that writing office discipline referrals is in itself punitive, not realizing that collecting this type of information could help certain students in the long run and allow teachers to be proactive.

Well sometimes there are people who just aren't supportive . . . who feel guilty when they write a student [office discipline referral] form . . . they think they're being mean . . . they feel as though they're being judgmental or . . . they're

punishing ... it's probably how they view [PBIS]. I don't think they've necessarily understand that we are just trying to collect data ... the purpose of data collection ... they think it's a punishment, but it's not a punishment, it's, it's, I need to write this down because if this continues then this might be something we need to talk, sit down and talk about whether with a student or with family (Participant 16).

Alternately, participants reported observing a belief that PBIS is only the use of external rewards. "Mistaken beliefs of [PBIS]. Teachers thinking it—or not just teachers--educators feeling that it's only about [acknowledgment tickets], tangible reinforcements, and not understanding it's something way bigger" (Participant 1). Other CIs revealed that staff members sometimes have the opposite mistaken belief that PBIS is only the use of controlling rules and consequences, rather than positive expectations. In one case, this belief caused frustration and fragmentation among the PBIS team members.

Another incident . . . a staff . . . wanting to be involved for the wrong reasons. They were wanting to be involved to make rules and consequences rather than establishing positive expectations...wanted black and white rules and wanted every single little rule that could possibly be thought of to be generated and included in the matrix...for me personally it meant that I left the team for a year because that wasn't why I was there. I wasn't there to make rules and be a rule police...I was there because I wanted it to be positive and I wanted it to be something that obtainable and achievable (Participant 4).

In all, 82% of the respondents discussed specific examples centered on conflicts in personal beliefs or mistaken beliefs as barriers to sustainability.

Chapter IV: Discussion

This study has explored the insider's perspective of the events perceived to significantly affect sustainability. The qualitative methodology, the Critical Incident Technique, through richly detailed description, provides a comprehensive picture of sustainability as it unfolds in the real world. Data were generated from lengthy interviews with 17 participants involved in PBIS, including district, administrative, and school personnel who were asked the following research questions: 1) What were the important events (i.e., specific behaviours or observable happenings) that helped the sustainability of PBIS in your school? and, 2) What were the important events (i.e., specific behaviours or observable happenings) that hindered sustainability of PBIS in your school? Examination of these data revealed thirteen categories: PBIS Teams, Continuous Teaching, Focus on Positives, Staff Ownership, Administrative Involvement, Adaptation, Community of Practise, Use of Data, Involving New Personnel, Access to External Expertise, Priority, Staff Turnover, and Conflict of Personal Beliefs/Mistaken Beliefs.

As in a perfect storm, dynamic efforts in one area can affect others culminating in a unique way to create the elements critical to sustainability. These emergent categories and their dynamic interactions can perhaps best be understood within the broader context of the fundamental components surfacing in the existing sustainability research, including infrastructure, contextual fit, leadership, self-sustaining feedback cycles, and potential barriers. Unpacking this story of sustainability from an insider's perspective and situating it within the current body of research illuminates the critical components, enablers, and barriers to sustainability that affect real life PBIS applications.

Consistent with current research, the majority of participants experienced well-established organizational structures such as PBIS teams, and communities of practice as critical to durable systems change (Ervin & Schaughency,2008; Greenberg, 2010: Sparks, 2007).

Infrastructures build capacity by providing the ongoing information, support, and collaboration needed to maintain PBIS. Strategic planning by the school PBIS teams appears to be a critical component of a sustainable initiative (Adelman & Taylor, 2003; McIntosh et al., 2009).

According to both insiders and researchers, healthy teams with clear governance, roles, and structures are more effective. Similar to research by McIntosh and colleagues, the participants in this study emphasized the importance of fixed, recognized, functional, school-based PBIS teams with diverse staff representation as being linked to long-term effectiveness and efficiency. In particular, teams with acknowledged autonomy, formal routines and regular monthly meetings help maintain school-wide PBIS activities (Sparks, 2007), whereas teams with a lack of structure can inhibit even the most promising new approaches (Santangelo, 2009). These telling events, recalled by the majority of insiders, provide further validation for self-assessment and action planning tools such as the SUBSIST Sustainability Checklist (McIntosh, 2010) to focus team efforts and assess team functionality.

An additional organizational factor manifested in both the research literature and the present study is access to an active community of practice. The deeper knowledge and support gained from collaboration among multi-level professionals is a consistent category across the sustainability literature (Bambara, 2009; Fullan, 2005; Klingner et al., 1999). Accessible networks for exchanging ideas, explicit pragmatic discussions, problem solving, and sharing celebration (Hieneman & Dunlap, 2000) enables ongoing professional development of technical skills and a common knowledge base (Baker et al., 2004; Sugai & Horner, 2009) and also provides timely information at times of uncertainty (Ervin & Schaughency, 2008). A larger community of practice provides not only ongoing information and training, but also a sense of a common mission, which strengthens and renews commitment. Regular opportunities for

collaboration maintained the reciprocal conversation of PBIS at multiple levels: teacher to teacher, teacher to administrator, and district to school personnel. Research from the field of social psychology shows that increased elaboration and thoughtfulness about a practice can lead to greater attitude certainty, which predicts behaviour persistence (Barden & Petty, 2008). When teachers take individual responsibility to present and share at networking meetings, their levels of commitment and knowledge increase, and they may internalize core components. In line with the extant research, insiders strongly endorsed peer networking across multiple schools as advantageous to school-wide implementation (Klingner et al., 1999). According to Baker et al. (2004), teachers at the highest level of implementation of practices reported that their greatest concern was for increased collaboration among professionals, whereas beginner level teachers' concerns were primarily related to basic implementation practices. Critical incidents in this category refer to implementers from multiple professional and experience levels being actively engaged in a peer-directed, collective, and collaborative event. Spark (2007) makes reference to this category as communication networks, where heterogeneous participants have a forum to broaden practices beyond more restrictive exchanges. Spark's study found that exchange opportunities helped maintain high levels of PBIS in 4 public schools, 3 years post-implementation, affirming Rogers' (2003) assertion that diffusion is connected to sustainability.

Across the literature and within the present study, it has been substantiated that administrative involvement has a pervasive effect on sustainability (Bambara et al., 2009; Flannery, Sugai, & Anderson, 2009; Handler et al., 2007; Kern, 2009; Klingner et al., 1999; Netzel & Eber, 2003; Santangelo, 2009). This result is not surprising, considering administrators' roles in integrating new initiatives, orientating new staff, maintaining organizational structures, setting agendas, leading strategic plans for continuous teaching, and

emphasizing accountability (McIntosh, Horner, & Sugai, 2009). Several incidents described how administrators with deep knowledge and commitment to PBIS helped teams move forward by providing timely opportunities for professional development. Similar to findings found by Bambara and colleagues (2009), the teachers and principals in this study emphasized the need for the administrators to be actively involved in training and networking sessions. Another point regarding building leadership is that administrators, by regularly attending team meetings and putting PBIS on the staff agenda, can keep the PBIS conversation active; they keep the structures in place to ensure ongoing implementation. In this study, administrators' consistent and active participation on PBIS teams and regular use of PBIS language was reported to influence everyday activities, structures, and school culture. As a result, the strength of administrators' vision, voice, and presence can raise the staff sense of collective efficacy for implementation (Goethals, Sorenson, & Burns, 2004; Doolittle, 2006). However, administrators would need to protect their time for these activities, given the increasing time demands of their ever expanding roles (Fixsen et al., 2005). In addition, the skills of filtering new ideas and blending innovation fostered healthy adaptations while sustaining core practices (McIntosh et al., 2009).

Accordingly, when school administrators lack deep knowledge, fail to support team decisions, or oppose PBIS practices through their actions or words, the system can quickly become fractured. Lack of administrator understanding or commitment can interfere with staff buy-in, thereby having a ripple effect, hindering even the most effective teams (Bambara et al., 2009; Santangelo, 2009). Clearly evidence indicates administrators play a key influential role that affects many other components, suggesting that dynamic efforts in this area can potentially shape a very positive sustainability course.

On the other hand, staff ownership, which refers to a critical mass of educators engaged toward a practice and collective mission, was also central to most participants' experience of sustainability. Within these schools, PBIS implementation and sustaining events were viewed as successful because they were staff embraced, bottom up systems change initiatives. Regardless of how efficacious or mandated a practice may be, if the social structures and teacher autonomy to choose this practice are ignored, the practice will likely not succeed over time (Carr et al., 2002; Kincaid et al., 2007). Interestingly, information technology innovations have often been abandoned because of disregard for teacher buy-in; for this reason, the meaning that an innovation holds for staff is central to adoption of new practices (Yiasemina, 2005). Flannery, Sugai, and Anderson (2009) identified staff commitment as being a significant factor affecting PBIS implementation success. As a result, ongoing awareness of teacher buy-in and methods to facilitate staff ownership is critical to sustained PBIS capacity (George & Kincaid, 2008). When the majority of staff members are sufficiently invested and motivated, efforts to integrate innovations into daily routines increase. Committed staff serve to maintain change, by modeling new practices and negating old behaviours (Senn & Childress, 1999). Participants consistently described staff willingness, furthered by lead teachers with strong drives, as imperative to sustainability. At times of uncertainty, these lead teachers were influential in maintaining capacity. Thus, school systems interested in sustaining change would be wise to capitalize on the facilitative role of lead teachers.

A factor endorsed here by participants but not highly recognized in the literature was the arrival and involvement of new personnel. Specifically, the data suggest that a school's ability to mobilize the fresh ideas and energy of new staff plays an important function in sustainability. Interviews indicate that focused efforts and strategic plans to engage members early in PBIS

structures (i.e., PBIS team, district networks) enhanced sustainability. As suggested in the literature, providing early training, orientation, and opportunities to get new staff actively involved are enabling events that potentially counteract barriers of staff turnover and conflict in personal beliefs (McIntosh et al., 2009). Knowledge, skills, and commitment are threatened with mobility of staff (Sparks, 2007), necessitating thoughtful planning and organizational structures to ensure rejuvenation (Adelman & Taylor, 2003). In the current study, when there was a lack of planning for capacity building, participants recalled inaccurate daily practices, loss of critical knowledge, lack of consistency, and deterioration of staff cohesion.

According to insiders, attrition of school champions or important PBIS team members seriously threatens PBIS supports and structures. To counter the effects of attrition, teams developed strategic plans to maintain infrastructures (Ervin et al., 2006). An important part of this plan included immersing new school personnel into the PBIS culture: (1) inviting them to be on the school PBIS team, (2) pairing them with PBIS team veterans for mentoring in PBIS practices, (3) involving them in plans for booster sessions and presentations to the school board and other schools, and (4) encouraging participation in networking sessions and conferences. Another part of schools' plans involved adapting recruitment procedures so that job descriptions and interview procedures emphasized the PBIS school culture, and fit with the culture was considered in hiring decisions. Sustainability can either be strengthened or weakened, depending on new personnel's alignment with school norms and practices. As such, targeted hiring has been effective in helping schools deal with attrition, by creating opportunities to find candidates with interest or skills in PBIS, which leads to more stable practices, collaboration, and school-level capacity (DeArmond, Gross, Goldhaber, 2010; Fixsen et al., 2005). Together with the current findings, this research has implications for school districts that oversee hiring practices,

because it becomes their responsibility to skillfully navigate recruitment and selection, where alignment is facilitated through increased information exchange between schools hiring and the applicants.

The positive impact of external expertise found in the current study is consistent with findings by Flannery and colleagues (2009) that outside input in the form of university partnerships, trained facilitators, and coaches helps to ground critical components, through a reciprocal exchange of information with outside facilitators. Professional development is enhanced at critical points in the evolving practice (Ervin, Schaughency, Goodman, McGlinchey, and Mathews 2006; Baker et al., 2004), benefiting long term implementation integrity. The access to outside facilitators proved salient in the four year sustainability project conducted by Ervin, Schaughency, Goodman, McGlinchey, and Mathews (2006). As school-based teams continue to operationally define and adapt practices, and develop a deeper understanding of PBIS, the information they seek may change, making ongoing heterogeneous interaction with diverse professionals beneficial (Sparks, 2007). Freeman et al. (2009) emphasized the importance of intra-agency collaboration with institutions of higher education to infuse systems with knowledge and ongoing technical capacity. Practitioners learn from those with expertise, and those with expertise are further informed by school-level implementers.

Additionally, the richly detailed accounts in this category suggested that the credibility of the message source may have mediated this factor's influence on sustainability. Perhaps having someone who is recognized as having substantial expertise facilitates a deeper processing of information linked to long term behavioural change (Petty, Heesacker, & Hughes, 1997). Finally, external support was also important to mitigate the loss of key personnel. For example, coaches were called in to support teams as they transitioned through these changes.

Connected to sustainability literature on effectiveness, efficiency, and ongoing regeneration (McIntosh et al., 2009), participants similarly identified continuous teaching and adaptation as essential elements. As PBIS components are integrated into existing school structures and resources, certain elements are adapted to increase relevancy, efficiency, and effectiveness (McIntosh et al., 2010). First, expectations and goals are locally translated to fit the cultural or demographic context. Second, educators work together at the building level to make process and procedures even more efficient to increase adherence to daily PBIS practices. Researchers have found inefficient procedures or the perception of inefficiency, if not adapted, can be a major barrier to sustained engagement (Bambara et al., 2009; Roger, 2003; Sparks, 2007). Third, when new ideas and programs were introduced at the school level, there is a conscious effort to align practices by looking for common linkages with existing practices (McIntosh et al., 2009). Similar to evolutionary principles, sustainability depends upon the contextual fit of the adapted response with the ever-changing environmental conditions. When core survival elements are adapted to address current challenges identified in the school and linked to important outcomes, continued practice is more likely (Han & Weiss, 2005; Vaughn, Klingner, Hughes, 2000). Flexible initiatives that generally fit with values and goals of the community have more long term durability (Pluye et al., 2005). Finally, insiders strongly perceived continuous teaching as helpful in re-activating key PBIS components. This pragmatic category is not commonly highlighted in sustainability research. In the incidents cited, it was evident that continuous teaching served as a reminder to both staff and students of PBIS guiding principles. The visual displays around the school, as well as the presentation and guided practice throughout the year, kept PBIS concretely central to the culture of the schools. Sparks (2007) found that PBIS schools that systematically defined and communicated expectations maintained

high levels of implementation integrity. It is possible that the effortful activity of creating presentations, expectations posters, and actual rotations on the playground and in the hallway stimulates cognitive elaboration, rehearsal, and internalization of PBIS core tenets. Numerous staff members recalled that these conspicuous elements of PBIS were a regular reminder to use PBIS practices. Although educators may sometimes consciously abandon programs, they may also slowly neglect or forget about implementation practices over time, leading to lack of implementation (Klinger et al., 1999). In the same way, participants in this study reflected a lack of re-teaching or time restraints on systematic teaching as hindering events. Intuitively, it is logical that without physical reminders of what PBIS looks like, students and staff can regress back to using less effective strategies. Furthermore, participants interviewed believed that an engaged review of the expectations over the years contributed to the development of a common language permeating the school community. Findings from the current study support the notion that implementation and sustainability are recursive happenings within schools (McIntosh et al., 2009; Pluye et al., 2005; Sugai & Horner, 2009).

In summary, the category of optimal fit relating to practicality and acceptability that emerged from the present data is consistent with conceptual models of sustainability in the field (Carr et al., 2002; McIntosh et al., 2009). Sustainability research in health care and agriculture also validates the importance of adaptive events to innovation routinization (Pluye et al., 2005; Rogers, 2003). Rejuvenation occurs when old practices are brought back to life through adaptation. Refreshing ideas and innovative ways of doing the same activities kept staff interested and actively thinking about the practices. Repetition of the same activities can become mundane quickly, reducing commitment. Schools wishing to maintain PBIS can enhance

implementation fidelity by continually exploring creative and meaningful ways to extend and adapt PBIS components.

Findings related to focusing on the positives and effective use of data highlight the importance of underlying self-sustaining feedback loops (Han & Weiss, 2005). Data emerged that positive reinforcement and data collection systems both serve to mobilize staff and motivate future efforts. Respondents consistently identified the behavioural principle of positive reinforcement as being fundamental to sustainability of PBIS. Likewise, several studies of program sustainability recognized this underlying mechanism as being important to sustainability (Han & Weiss, 2005; Klingner et al., 1999; Pluye et al., 2005). Explicitly, the majority of participants acknowledged observing positive student outcomes, such as overall improved behavior in the classroom, assemblies, hallways, and playground, as reinforcing their sustained use of PBIS practices. Proactive systems such as PBIS reduce the effort required to manage behaviour, while creating a more positive school climate and working relationship between students and teachers (Klingner et al., 1999; Flannery et al., 2010). Teachers and administrators also cite improvements in individual student behavioural and academic outcomes as building momentum for sustaining PBIS systems. Assessing both program implementation and critical student outcomes helps practitioners to see the direct connection between practice components and desired outcomes. In turn, performance feedback can provide rich incentives to participants for maintaining practices (Han & Weiss, 2005). This feedback is also helpful when results also demonstrate that staff are becoming more skilled at PBIS implementation activities (McIntosh et al., 2009), as successful high-level implementers are more likely to sustain and extend practices (Klingner et al., 1999; Sparks, 2007). In summary, the visible success provided by feedback cycles serves to expand the support base for sustained practices at high levels of implementation

integrity (Mass-Galloway, Panyan, Smith, and Wessendorf, 2008; McIntosh et al., 2009). Furthermore, when exemplary schools are recognized at the district and community level, it affirms their practices and enhances priority for sustaining them (George & Kincaid, 2008). Critical incidents documented in this category suggest the importance of implementers at the district and school level actively acknowledging successes at the district, school, and individual level and enhancing visibility of their efforts to stakeholders.

The effective use of data emerged as a salient maintaining agent in the narratives of the participants, as integrated data routines strongly influenced both the quality and regularity of day to day PBIS efforts. As McIntosh et al. (2009) noted, the activity of frequently collecting and reviewing data can increase staff investment and preserve program status. Furthermore, these data, when reviewed and shared at the school, district and community levels, can help secure the priority status of prevention programs at the grassroots and policy level. Utilization of effective and valid data collection tools is well-documented as an important part of accountability (Greenberg, 2010). Effective implementations have concrete structures to provide continuous performance feedback to direct change and create self-sustaining systems (Ervin et al., 2006; Han & Weiss, 2005). Within the three schools studied here, data helped guide daily and long term practices, thus reinforcing program durability. From an insider's perspective, the process of data-based decision added objectivity and credibility to PBIS, increasing stakeholders' certainty in the process. Data-based systems allowed PBIS teams to develop a sense of professional autonomy and become more self-sufficient in directing their own priorities and resources, reducing the need for outside assistance over time (Sugai & Horner, 2009). When staff experienced the positive benefits of data collection, their perceptions of the activity improved, as

has been shown in other studies (Rogers, 2003). Consequently, data analysis can be seen as mediating the relation between student outcomes and perceived success.

In keeping with previous research on sustainability (Baker et al., 2004; McIntosh et al., 2010; Netzel & Eber, 2003; Slavin 2004; Sugai et al., 2009), participants in this study strongly endorsed priority as being part of their experience. According to researchers, “Priority plays a vital role in sustainability, as it drives efforts to preserve and renew the practice over time” (McIntosh, et al., 2010). More specifically, district priority can direct resources, hiring, and professional development provided to teachers (Han & Weiss, 2005). Participant interviews indicated that policy commitment at the district level makes a difference. When initiatives are perceived to be aligned with district interests, as stated in school accountability contracts, providers feel motivated and supported to continue practices (Coburn, 2003). When school practices and district mandates are not aligned, implementers can become disillusioned and uncertain, shifting their level of commitment and use of these practices (Baker et al., 2004; Ervin et al., 2006; Santangelo, 2009). This lack of alignment also resonated in the hindering incidents recalled by participants. Given the myriad social, political, and cultural factors affecting these schools, the degree of alignment maintained between the district and school practices in the district studied is admirable. This consistency is the result of thoughtful and ongoing strategic efforts of district administrators. In light of these findings, schools and districts seeking sustainable change can show how a PBIS approach leads to student outcomes that are valued by district stakeholders (George & Kincaid, 2008).

Lastly, Flannery, Sugai, and Anderson (2009) found that conflict in values was often cited as a constraint to implementation practices. Specifically, they found that personal beliefs about rewards and consequences determined teachers’ willingness to deliver rewards and public

recognition. This challenge resonates with participants' experience in the current study. Taken as a whole, these results suggest that ongoing strategies to explore core beliefs, grow a sense of collective efficacy, educate staff concerning prevention versus reaction, and discuss the practicality of positive reinforcement may prove helpful (Bambara et al., 2009; Sparks, 2007). Schools with a more unified culture of prevention and support have embedded core expectations, which may facilitate the continuation of practices. This factor also interacts with other emergent categories, such as recruitment of new staff, strength of the PBIS team, and continuous teaching. Early immersion of incoming staff with the cultural ethos of the school may help to counter this potential barrier. In the sustainability phase, it is important to continually assess and clarify mistaken beliefs about the practice itself. Reviewing the rationale and functional aspects of critical features is necessary to ensure on going contextual fit (McIntosh et al., 2009). In a study of sustained evidence-based reading practices, teachers' misconceptions about the practice were found to be a significant barrier (Klingner et al., 1999). Overall, challenges to sustainability connected to conflict in personal beliefs remain a complex issue in need of ongoing consideration.

Research Contributions

This qualitative study demonstrates a unique and pragmatic alternate methodology that can be used to investigate sustainability (Carr et al., 2002; Greenberg, 2010). It shows how the rich descriptions derived through qualitative methods can provide informative caveats and real life contingency that inform theory development and suggest sustaining practices in the real world. The established utility of CIT in task analysis and process evaluation illustrates that CIT is well designed to reveal truths and underlying realities operating at the grassroots level (Flanagan, 1954). Embedded quotes allow the reader to go beyond empirical factors to

contextually understand the process and meaning made of the events. Furthermore, the scientific rigor of this study, with its nine credibility checks, allows the unique and rare experience of sustainability to be authentically represented.

This study makes several important contributions to the extant literature and theory development on school wide sustainability. First, the thirteen categories provide a summative and descriptive structure that is theoretically and pragmatically useful to researchers, policy makers, and practitioners working in the field. A review of the current sustainability research reveals that although several of these categories cluster within isolated studies, rarely captured is such a holistic view of the categories as seen through this qualitative lens. The current CIT study adds detailed information about potent promoting and hindering factors to the extant research literature consistent with emergent conceptual/explanatory models. Specifically, this study replicates the findings in other sustainability studies suggesting priority, administration, external expertise, adaptation rejuvenation, communication exchange structures (PBIS teams, networks), staff investment, positive feedback, and use of data play a pivotal role in preservation of practices (Bambara et al., 2009; Coffey & Horner, in press; Sparks, 2007). Policy makers and districts could include these comprehensive components into sustainability plans to keep implementing effective practices. The more expensive alternative is to implement new practices every 3 to 4 years. The events documented illustrate that maintaining interest and motivation related to priority status among competing initiatives requires foresight and creativity (George & Kincaid, 2008). Site-based plans can include procedures that support sustainability, such as presenting outcomes and rationale to the school board, parent advisory councils, and other stakeholders. Continued alignment of principals with school practices, ongoing access to communities of practice for training and reinvestment, and practice-focused hiring of potential

leaders can serve to refuel the system. The information here has implications for administrators to proactively reflect upon their actions and role in supporting formal organizational structures, blending initiatives, recruitment, monitoring ongoing staff buy-in, facilitating networking and creating an ethos of collective efficacy. Their active involvement on the team, modeling and re-teaching of core features, setting time aside for regular collaboration with multi-level professionals, and data review can positively affect preservation of practices. School staff can be supported through networking meetings, PBIS team activities, data-based systems, and modeling of continuous teaching of core components to foster the establishment of a common language.

Taylor, Nelson, and Adelman (1999) suggested that institutionalization of practices occurs when school personnel actively take on “long-term ownership” and have a “blueprint” to offset happenings that threaten implementation fidelity. This study affirms the need for systems to counter staff mobility, by bringing in new personnel with fresh ideas of who are aligned with existing practices and recruited early into PBIS structures as potential team leaders. Second, this study strengthens the validity of factors previously highlighted in conceptual models (e.g., McIntosh et al., 2010), and in tools targeted to assess, predict and guide sustainability (Sugai et al., 2009). The core elements important to insiders are consistent with key sustainability features identified by SUBSIST (McIntosh et al., 2010), suggesting that this tool may be useful as school teams move onward.

In general, the insiders’ collective understanding of influencing factors is quite similar to existing theoretical conceptualizations (McIntosh et al., 2009; Sugai et al., 2009), with the exception of the category of new personnel, which is not broadly acknowledged. Insights drawn here have implications for systems change in other areas, such as other response to intervention (RTI) and evidence-based practices in schools. Ultimately, it is hoped that the insights gained

from this study and research on sustainability of “best practices” will lead to better student outcomes. With this conceptual framework in mind, ministries and districts could invest in programs that have proven durability and acknowledging, propagating and funding efficacious practices.

Limitations and Future Directions

For several reasons, the results of this study are not intended to be generalized, but instead document meaningful insights that might guide future practice. First, the study relied upon retrospective self-reports of events, which may be selectively or imperfectly recalled. Yet, it is important to note that the critical events subjects tend to recall are those that are most memorable, because they have had an impact on the activities specified. Second, beneficial and hindering events were subjectively recalled as personal reconstructions, which may have been biased by response sets, availability heuristics, attributions, and cultural artefacts (Gilovich, Keltner & Nisbett, 2006). To address these issues, future studies could include direct behavioural observations and analysis of permanent records (e.g., consultation logs; PBIS team and staff meeting agendas) to corroborate critical factors cited by participants. It is also important to note that though categories based on participants’ subjective perceptions may differ from correlational factors derived from empirical studies, those factors cited by participants are still real, in that they were directly experienced and had consequential implications for participants’ later cognitions and actions (Bedi, 2005; Kavale, 1995). Third, future replications of a larger sample size, across more diverse school settings, will be needed to strengthen the external validity of these findings beyond this particular group. Fourth, by limiting this study to sites where PBIS has been successfully sustained, we cannot assume that non-sustaining schools would identify the same enablers and barriers. Additional research could include both sustaining

and non-sustaining sites for comparison. Lastly, participants were not randomly selected, but instead purposely sampled to triangulate data from different perspectives, which further limits generalizability. It is reasonable to suggest that the results of this study could be replicated, given that CIT methodology with its specific steps to be followed lends itself to replication. Although unique events may have occurred in these schools, many of these conditions might be seen in other educational systems that are moving from implementation toward sustainability (Chell & Pittaway, 1998). Finally, a follow-up practice-focused study could look at manipulating one or two variables or a hierarchy of variables identified in this study to tease out the differing degrees of their impact. Future qualitative and quantitative studies could examine the impact of new personnel on sustainability or experimentally manipulate this under-recognized variable.

Conclusion

Though not exhaustive, the emergent categories from this study illuminate some potential enabling activities and conditions that insiders view as relevant to sustainability. Often, empirical efforts alone are insufficient in describing dynamically complex systems change over time. Multi-methods of research continues to be needed to fully understand the multi-layered construct of sustainability related to evidence-based practices in schools. Exploration of enablers and awareness of barriers may lead to increased incidences of sustained implementation. Going beyond statistical generation of factors, field-based studies using pragmatic methodologies can help educators decide how to best target resources and efforts, based on lessons learned in the real world.

References

- Adelman, H. & Taylor, L. (1997). Toward a scale-up model for replicating new approaches to schooling. *Journal of Educational and Psychology Consultation*, 8, 197-230.
- Adelman, H. & Taylor, L. (2003). On sustainability of project innovations as systemic change. *Journal of Educational and Psychological Consultation*, 14, 1-25.
- Adelman, H. & Howard, L. (2007). *Toward a school district infrastructure that more effectively addresses barriers to learning and teaching: A center policy & practice analysis brief*. Los Angeles, CA: Center for Mental Health in Schools at UCLA.
- Andersson, B. E., & Nilsson, S. G. (1964). Studies in the reliability and validity of the critical incident technique. *Journal of Applied Psychology*, 48, 398-403.
- Anderson, L. and Wilson, S. (1997). Critical incident technique. In Whetzel, D.L. and Wheaton, G.R. (Eds), *Applied Measurement Methods in Industrial Psychology*, pp. 89-105. Palo Alto, CA: Davies-Black.
- Baker, S., Gersten, R., Dimino, J. A., & Griffiths, R. (2004). The sustained use of research-based instructional practice: A case study of peer-assisted learning strategies in mathematics. *Remedial and Special Education*, 25, 5-24.
- Bambara, L. M., Nonnemacher, S., & Kern, L. (2009). Sustaining school-based individualized positive behavior support: Perceived barriers and enablers. *Journal of Positive Behavior Interventions*, 11, 161-176.
- Barden, J., & Petty, R.E. (2008). The mere perception of elaboration creates attitude certainty: Exploring the thoughtfulness heuristic. *Journal of Personality and Social Psychology*, 95, 489-509.
- Barrett, S., Bradshaw, C., & Lewis-Palmer, T. (2008). Maryland statewide PBIS initiative: Systems, evaluation, and next steps. *Journal of Positive Behavior Interventions*, 10, 105-114.
- B.C. Ministry of Children and Family Development (2008). Promises kept, miles to go: A review of child and youth mental health services in B.C.. Retrieved from http://www.mcfed.gov.bc.ca/mental_health/pdf/cymh_review_full_report_final.pdf
- B.C. Ministry of Education (2008). Safe, Caring and Orderly Schools: A guide. Retrieved from <http://www.bced.gov.bc.ca/sco/guide/scoguide.pdf>
- Bedi, R. P., Davis, M., & Williams, M. (2005). Critical incidents in the formation of the therapeutic alliance from the client's perspective. *Psychotherapy: Theory, Research, Training*, 42, 311-323.

- Bohanon, H., Flannery, K. B., & Malloy, J. (2009). Utilizing positive behavior supports in high school settings to improve school completion rates for students with high incidence conditions. *Exceptionality, 17*, 30-44.
- Bohanon, H., Fenning, P., Carney, K., Minnis-Kim, M., Anderson-Harriss, S., Moroz, K., Hicks, K., Kasper, B., Culos, C., Sailor, W., & Pigott, T. (2006). Schoolwide application of positive behavior support in an urban high school: A case study. *Journal of Positive Behavior Interventions, 8*, 131-145.
- Borgen, W. A., & Amundson, N. E. (1984). *The experience of unemployment*. Scarborough, Ontario: Nelson.
- Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2010). Examining the effects of Schoolwide Positive Behavioral Interventions and Supports on student outcomes. *Journal of Positive Behavior Interventions, 12*, 133-148.
- Butterfield, L. D., Borgen, W. A., Amundson, N., & Maglio, A. (2005). Fifty years of the critical incident technique: 1954-2004 and beyond. *Qualitative Research, 5*, 475-497.
- Butterfield, L. D., Borgen, W. A., Maglio, A., & Amundson, N. (2009). Using the enhanced critical incident technique in counseling psychology research. *Canadian Journal of Counseling, 43*, 265-282.
- Carnine, D. (1999). Perspective: Campaigns for moving research to practice. *Remedial and Special Education, 20*, 2-6.
- Carr, E. G. (1997). Evolution of applied behavior analysis into positive behavior support. *Journal of the Association for Persons with Severe Handicaps, 22*, 208-209.
- Carr, E. G., Dunlap, G., Horner, R. H., Koegel, R. L., Turnbull, A. P., Sailor, W., Anderson, J., et al. (2002). Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Interventions, 4*, 4-16.
- Chell, E. (1998). Critical incident technique. In G. Symon, & C. Cassell (Eds.), *Qualitative methods and analysis in organizational research: A practical guide* (pp. 51-72). London: Sage.
- Chell, E., & Pittaway, L. (1998). A study of entrepreneurship in the restaurant and cafe' industry: exploratory work using the critical incident technique as a methodology. *International Journal of Hospitality Management, 17*, 23-32.
- Clark, S., & Dunlap, G. (2008). A descriptive analysis of interventions research published in the Journal of Positive Behavior Interventions: 1999-2005. *Journal of Positive Behavior Interventions, 10*, 67-71.

- Coburn, C. E. (2003). Rethinking scale: Moving beyond number to deep and lasting change. *Educational Researcher*, 32, 3-12.
- Coffey, J., & Horner, R. H. (in press). The sustainability of school-wide positive behavioural interventions and supports. *Exceptional Children*.
- Colvin, G. & Fernandez, E. (2000). Sustaining effective behavior support systems in an elementary school. *Journal of Positive Behavior Interventions*, 2, 251-253.
- Colvin, G., Kame'enui, E. J., & Sugai, G. (1993). School-wide and classroom management: Reconceptualizing the integration and management of students with behavior problems in general education. *Education and Treatment of Children*, 16, 361–381.
- Creswell, J.W. (2007). *Qualitative inquiry & research design: Choosing among five approaches*. (2nd ed.). Thousand Oaks, CA: Sage.
- Curry, O. S. (2008). Positive behavior support (PBIS) in the Talladega county school system: A descriptive analysis of fidelity, implementation and outcomes. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 68, 2738.
- DeArmond, M., Gross, B., Goldhaber, D. (2010). Is it better to be good or lucky? Decentralized teacher selection in 10 elementary schools. *Educational Administration Quarterly*, 46, 322-362.
- Dedes, C. (2004). *Factor analysis of the Effective Behavior Support Survey with data from one urban high school*. Unpublished master's thesis, Loyola University–Chicago.
- Doolittle, J. H., Horner, R. H., Bradley, R. (2007). Importance of student social behavior in the mission statements, personnel preparation standards, and innovation efforts of State Department of Education. *Journal of Special Education*, 40, 239-245.
- Douglas, J., McCelland, R., & Davies, J. (2008). The development of a conceptual model of student satisfaction with their experience in higher education. *Quality Assurance in Education*, 16, 19-35.
- Dunlap, G. (2006). The applied behavior analytic heritage of PBIS: A dynamic model of action-oriented research. *Journal of Positive Behavior Interventions*, 8, 58-63.
- Dunlap, G., Sailor, W., Horner, R. H., Sugai, G. (2009). Overview and history of positive behavior support. In W. Sailor, G. Dunlap, G. Sugai, R. Horner (Eds.). *Handbook of positive behavior support*. New York, NY: Springer Science & Business Media.
- Dunlap, G., Koegel, R. L., Carr, E. G., Sailor, W., & Anderson, J. (1990). Toward a technology of “nonaversive” behavioural support. *Journal of the Association for Persons with Severe Handicaps*, 15, 125-132.

- Eber, L. (2006). *Illinois PBIS evaluation report*. LaGrange Park: Illinois State Board of Education, PBIS/EBD Network.
- Elias, M. J., Zins, J. E., Graczyk, P. A., & Weissberg, R. P. (2003). Implementation, sustainability, and scaling up of social-emotional and academic innovations in public schools. *School Psychology Review*, *32*, 303-319.
- Ervin, R. A., Schaughency, E., Goodman, S. D., McGlinchey, M. T., & Matthews, A. (2006). Merging research and practice agendas to address reading and behaviour school-wide. *School Psychology Review*, *35*, 198-222.
- Ervin, R. A., & Schaughency, E. (2008). Best practices in accessing the systems change literature. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology* (5th ed., Vol. 3, pp. 853-873). Bethesda, MD: National Association of School Psychologists.
- Filter, K. J. (2007). Positive behavior support: Considerations for the future of a model. *The Behavior Analyst*, *30*, 87-89.
- Fisher, S. Oulton, T. (1999). The critical incident technique in library and information management research. *Education for Information*, *17*, 113-125.
- Fixsen, D. L., Naoom, S. F., Blasé, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: Synthesis of the literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publications #231).
- Flanagan, J. C. (1954). The critical incident technique. *Psychological Bulletin*, *51*, 327-358.
- Flannery, K. B., Guest, E. M., & Horner, R. H. (2010). Schoolwide positive behavior supports. *Principal Leadership*, *11*, 38-43.
- Flannery, B., Sugai, G., & Anderson, C. (2009). High school school-wide positive behavior support: Early lessons learned. *Journal of Positive Behavior Interventions*, *11*, 177-185.
- Fuchs, D., Fuchs, L. S., Harris, A. H., & Roberts, P. H. (1996). Bridging the research-to-practice gap with mainstream assistance teams: A cautionary tale. *School Psychology Quarterly*, *11*, 244-266.
- Fullan, M., Bertani, A., & Quinn, J. (2004). Lessons from district-wide reform. *Educational Leadership*, *61*, 42-46.
- Freeman, R., Eber, L., Anderson, C., Irvin, L., Horner, R., Bounds, M., & Dunlap, G. (2006). Building inclusive school cultures using school-wide positive behavior support; Designing effective individual support systems for students with significant disabilities. *Research & Practice for Persons with Severe Disabilities*, *31*, 4-17.

- Freeman, R., Lohrmann, S., Irvin, L. K., Kincaid, D., Vossler, V., & Ferro, J. (2009). Systems change and the complementary roles of in-service and pre-service training in schoolwide positive behavior support (pp. 603-629). New York: Springer. In W. Sailor, G. Dunlap, G. Sugai, & R. H. Horner(Eds.), *Handbook of positive behavior support* (pp.603-629). New York: Springer.
- Goethals, G. R., Sorenson, G. J., Burns, J. M., (2004). Encyclopedia of Leadership. District <http://www.sagepub.com/booksProdDesc.nav?prodId=Book220818>
- George, H., & Kincaid, D. (2008). Building district-level capacity for positive behaviour support. *Journal of Positive Behavior Interventions*, 10, 20-32.
- Gersten, R., Baker, S. K., Smith-Johnson, J., Flojo, J. R., Hagan-Burke, S. (2004). A tale of two decades: Trends in support for federally experimental research in special education. *Exceptional Children*, 70, 323-332.
- Gersten, R., Chard, D., & Baker, S. (2000). Factors enhancing sustained use of research-based instructional practices. *Journal of Learning Disabilities*, 33, 445-457.
- Gilovich, T., Keltner, D., & Nisbett, R. E. (2006). *Social Psychology*. New York: W.W. Norton & Company.
- Grant, N. K., & Hryack, N. (1987). Use of the critical incident technique to elicit opinions of residents of long-term care facilities about their care. *Nursing Homes*, 5/6, 38-44.
- Greenberg, M. T. (2010). School-based prevention: Current status and future challenges. *Effective Education*, 2, 27-52.
- Han, S. S., & Weiss, B. (2005). Sustainability of teacher implementation in applied analysis with children. *Journal of Abnormal Child Psychology*, 33, 665-679.
- Hienman, M., & Dunlap, G. (2001). Factors affecting the outcomes of community-based behavioural support. *Journal of Positive Behavior Interventions*, 3, 67-74.
- Horner, R. H., Dunlap, G., & Koegel, R. L. (1990). Toward a technology of “nonaversive” behavioural support. *Journal for Persons with Severe Handicaps*, 15, 125-132.
- Horner, R. H., & Sugai, G. (2009). Responsiveness-to-intervention and school-wide positive behavior supports: Integration of multi-tiered system approaches. *Exceptionality*, 17, 223-237.
- Horner, R. H., Sugai, G., Todd, A. W., & Lewis-Palmer, T. (2005). School-wide positive behavior support. In L. Bambara & L. Kern (Eds.), *Individualized supports for students with problem behaviours: Designing positive behavior plans* (pp. 359–390). New York: Guilford.

- Horner, R. H., Sugai, G., Smolkowski, K., Eber, L., Nakasato, J., Todd, A. W., & Esperanza, J. (2009). A randomized, wait-list controlled effectiveness trial assessing school-wide positive behavior support in elementary schools. *Journal of Positive Behavior Interventions, 11*, 133-144.
- Individuals with Disabilities Education Act of 1997. Available from the U.S. Department of Education Archives at Web site
<http://www.ed.gov/legislation/FedRegister/finrule/1996-2/050996b.html>
- Individuals with Disabilities Education Improvement Act of 2004. Public Law 108-446 108th Congress. Available from:
[http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_public_laws&docid=f:publ446.10820 U.S.C. 141434 C.F.R. §300.324\(a\)\(2\)\(i\)\)](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_public_laws&docid=f:publ446.10820 U.S.C. 141434 C.F.R. §300.324(a)(2)(i))).
- Keating, D. (2002). Versatility and flexibility: Attributes of the Critical Incident Technique in nursing research. *Nursing and Health Sciences, 4*, 33-39.
- Kincaid, D., Childs, K., Wallace, F., & Blasé, K. (2007). Identifying barriers and facilitators in implementing school-wide positive behaviour support. *Journal of Positive Behavior Interventions, 9*, 174-184.
- Klingner, J. K., Vaughn, S., Hughes, M. T., & Arguelles, M. E. (1999). Sustaining research-based practices in reading. *Remedial and Special Education, 20*, 263-274.
- Knoff, H. M. (2008). Best practices in implementing statewide positive behavioral support systems. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology* (5th ed., Vol. 3, pp. 749-763). Bethesda, MD: National Association of School Psychologists.
- Lane, K. L., Wehby, J. H., Robertson, E. J., & Rogers, L. A. (2007). How do different types of high school students respond to schoolwide positive behavior support programs? Characteristics and responsiveness of teacher-identified students. *Journal of Emotional and Behavioral Disorders, 15*, 3-20.
- Lassen, S., Steele, M., & Sailor, W. (2006). The relationship of school-wide positive behavior support to academic achievement in an urban middle school. *Psychology in Schools, 43*, 701-712.
- Lewis, T. J., & Sugai, G. (1999). Effective behavior support: A systems approach to proactive school-wide management. *Focus on Exceptional Children, 31*, 1-24.
- Lewis, T. J., Sugai, G., & Colvin, G. (1996). Functional assessment of problem behavior: A pilot investigation of the comparative and interactive effects of teacher and peer social attention on students in general education settings. *School Psychology Quarterly, 11*, 1-19.

- Luiselli, J. K., Putnam, R. F., Handler, M. W. (2005). Whole-school positive behavior support: Effects on student discipline problems and academic performance. *Educational Psychology, 25*, 183-198.
- Mass-Galloway, R. L., Panyan, M. V., Smith, C. R., & Wessendorf, S. (2008). Systems change with school-wide positive behavior supports: Iowa's work in progress. *Journal of Positive Behavior Interventions, 10*, 129–135.
- Marchant, M., Anderson, D. H., Caldarella, P. (2009). Schoolwide screening and programs of positive behavior support: Informing universal interventions. *Preventing School Failure, 53*, 131-144.
- May, S., Ard, W. I., Todd, A. W., Horner, R. H., Glasgow, A., Sugai, G., & Sprague, J. R. (2008). *School-Wide Information System*. Educational and Community Supports, University of Oregon, Eugene, OR.
- McKevitt, B. C., & Braaksma, A.D. (2008). Best practices in developing a positive behavior support system at the school level. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology* (5th ed., Vol. 3, pp. 735-747). Bethesda, MD: National Association of School Psychologists.
- McIntosh, K. (2010). *SUBSIST sustainability checklist*. Vancouver, BC: University of British Columbia.
- McIntosh, K., Chard, D. J., Boland, J. B., & Horner, R. H. (2006). Demonstration of combined efforts in school-wide academic and behavioral systems and incidence of reading and behavior challenges in early elementary grades. *Journal of Positive Behavior Interventions, 8*, 146-154.
- McIntosh, K., Doolittle, J., Vincent, C. G., Horner, R. H., & Ervin, R. A. (2009). *School-wide universal behavior sustainability index: School teams*. Vancouver, BC: University of British Columbia.
- McIntosh, K., Filter, K. J., Bennett, J. L., Ryan, C., & Sugai, G. (2010). Principles of sustainable prevention: Designing scale-up of school-wide positive behaviour support to promote durable systems. *Psychology in the schools, 47*, 5-21.
- McIntosh, K., Horner, R. H., & Sugai, G. (2009). Sustainability of system-level evidence-based practices in schools: Current knowledge and future directions. In W. Sailor, G. Dunlap, G. Sugai, & R. H. Horner (Eds.). *Handbook of positive behavior support* (pp. 327-352). New York, NY: Springer.
- Menendez, A. L., Payne, L. D., & Mayton, M. R. (2008). The implementation of positive behavioral support in an elementary school: Processes, procedures, and outcomes. *Alberta Journal of Educational Research, 54*, 448-462.

- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis* (2nd Ed.). Thousand Oaks, CA: Sage Publications.
- Muscott, H. S., Mann, E. L., & LeBrun, M. R. (2008). Positive behavior interventions and supports in New Hampshire: Effects of large-scale implementation of schoolwide positive behavior support on student discipline and academic achievement. *Journal of Positive Behavior Interventions, 10*, 190–205.
- Nelson, J. R., Benner, G. J., Reid, R. C., Epstein, M. H., & Currin, D. (2002). The convergent validity of office discipline referrals with the CBCL-TRF. *Journal of Emotional and Behavioral Disorders, 10*, 181–189.
- Nelson, J. R., Martella, R. M., & Marchand-Martella, N. (2002). Maximizing student learning: The effects of a comprehensive school-based program for preventing problem behaviors. *Journal of Emotional and Behavioral Disorders, 10*, 136-148.
- Netzel, D. & Eber, L. (2003). Shifting from reactive to proactive discipline in an urban school district: a change of focus through PBIS implementation. *Journal of Positive Behavioral Interventions, 5*, 71-79.
- No Child Left Behind Act of 2001 [NCLB]. (2001). Available at U.S. Department of Education Web site: <http://www.ed.gov/nclb/landing.jhtml>
- Noell, G. H., Witt, J. C., Slider, N. J., Connell, J. E., Gatti, S. L., Williams, K. L., et al. (2005). Treatment implementation following behavioral consultation in schools: A comparison of three follow-up strategies. *School Psychology Review, 34*, 87-106.
- Norman, J. N., Redfern, S. J., Tomalin, D. A., & Oliver, S. (1992). Developing Flanagan's critical incident technique to elicit indicators of high and low quality nursing care for patients and their nurses. *Journal of Advanced Nursing, 17*, 590-600.
- Putnam, R., Horner, R. H., & Algozzine, R. (2006). Academic achievement and the implementation of school-wide behavior support. *Positive Behavior Interventions and Supports Newsletter, 3*(1). Available from <http://www.pbis.org/news/New/Newsletters/Newsletter1.aspx>
- Radford, M. L. (1996). Communication theory applied to the reference encounter: an analysis of critical incidents. *Library Quarterly, 66*, 123-137.
- Rogers, E.M. (2003). *Diffusion of Innovations*. (5th ed). New York: Free Press.
- Ronan, W. W., & Latham, G. P. (1974). The Reliability and Validity of the critical incident technique: A closer look. *Studies in Personnel Psychology, 6*, 53–64.
- Sailor, W., Dunlap, G., Sugai, G., & Horner, R. H. (2009). *Handbook of positive behavior*

- support*. New York, NY: Springer.
- Santangelo, T. (2009). Collaborative problem solving effectively implemented, but not sustained: A case for aligning the sun, the moon, and the stars. *Exceptional Children, 75*, 185-209.
- Scruggs, T., & Mastropieri, M. (1996). Teacher perceptions of mainstreaming/inclusion, 1958-1995: A research synthesis. *Exceptional Children, 63*, 59-74.
- Seidman, E.I. (1991). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York: Teacher College Press.
- Senn, L., & Childress, J. (1999). *The secret of winning culture, building high-performance teams*. Los Angeles and New York: The Leadership Press.
- Sigurdsson, S. O., & Austin, J. (2006). Institutionalization and maintenance in organizational behavior management. *Journal of Organizational Behavior Management, 26*, 41-77.
- Sindelar, P. T., Shearer, D. K., Yendol-Hoppey, D., Liebert, T. W. (2005). The sustainability of inclusive school reform. *Exceptional Children, 72*, 317-331.
- Sprague, J., Walker, H. M., Golly, A., White, K., Myers, D. R., Shannon, T., & The University of Oregon Institute on Violence and Destructive Behavior. (2001). Translating research into effective practice: The effects of a universal staff and student intervention on indicators of discipline and school safety. *Education and Treatment of Children, 24*, 495-522.
- Stormont, M., Covington, S., & Lewis, T. J. (2006). Using data to inform systems: Assessing teacher implementation of key features of program-wide positive behavioral support in head start classrooms. *Beyond Behavior, 15*, 10-14.
- Scott, T. M. (2001). A schoolwide example of positive behavioral support. *Journal of Positive Behavioral Interventions, 3*, 88-94.
- Scott, T. M., & Barrett, S. B. (2004). Using staff and student time engaged in disciplinary procedures to evaluate the impact of school-wide PBIS. *Journal of Positive Behavior Interventions, 6*, 21-28.
- Solomon, B., Klein, S., Hintze, J., Cressey, J. & Peller, S. (2012). A meta-analysis of school-wide positive behavior support: An exploratory study using single-case synthesis. *Psychology in Schools, 49*, 105-121.
- Sparks, T. L. (2007). Implementation and sustainability of positive support in elementary schools. Unpublished doctoral dissertation. The University of Arizona. Retrieved November 9, 2009 from the ProQuest database.

- Sprick, R., Sprick, M., & Garrison, M. (1992). *Foundations: Developing positive school-wide discipline policies*. Longmont, CO: Sopris West.
- Sugai, G., & Horner, R. H. (2002). The evolution of discipline practices: School-wide positive behavior supports. *Child and Family Behavior Therapy, 24*, 23-50.
- Sugai, G., & Horner, R. H. (2006). A promising approach for expanding and sustaining school-wide positive behavior support. *School Psychology Review, 35*, 245-259.
- Sugai, G., & Horner, R. H. (2009). Defining and describing schoolwide positive behavior support. In W. Sailor, G. Dunlap, G. Sugai, R. Horner (Eds.). *Handbook of positive behavior support*. New York, NY: Springer Science & Business Media.
- Sugai, G., Horner, R. H., Algozzine, R., Barrett, S., Lewis, T., Anderson, C., Bradley, R., Choi, J. H., Dunlap, G., Eber, L., George, H., Kincaid, D., McCart, A., Nelson, M., Newcomer, L., Putnam, R., Riffel, L., Rovins, M., Sailor, W., & Simonsen, B. (2010). *School-wide positive behavior support: Implementers' blueprint and self-assessment*. Eugene, OR: University of Oregon. Retrieved from <http://www.pbis.org>
- Sugai, G., Horner, R. H., Dunlap, G., Hieneman, M., Lewis, T. J., Nelson, C. M. et al. (2000). Applying positive behavior support and functional behavioral assessment in schools. *Journal of Positive Behavior Interventions, 2*, 131-143.
- Sugai, G., Horner, R., & McIntosh, K. (2008). Best practices in developing a broad-scale system of school-wide positive behaviour support. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology* (5th ed., Vol. 3, pp. 765-779). Bethesda, MD: National Association of School Psychologists.
- Sugai, G., Lewis-Palmer, T. L., Todd, A. W., & Horner, R. H. (2001). *School-wide Evaluation Tool (SET)*. Eugene, OR: Educational and Community Supports. Available at <http://www.pbis.org>.
- Taylor-Green, S. J., & Kartub, D. T. (2000). Durable implementation of school-wide behavior support: The high five program. *Journal of Positive Behavior Interventions, 2*, 233-235.
- Woolsey, L. K. (1986). The critical incident technique: An innovative qualitative method of research. *Canadian Journal of Counselling, 20*, 242-254.
- Vaughn, S., Hughes, M. T., Schumm, J. S., & Klingner, J. K. (1998). A collaborative effort to enhance reading and writing instruction in inclusion classrooms. *Learning Disability Quarterly, 21*, 57-74.
- Vaughn, S., Klingner, J., & Hughes, M. (2000). Sustainability of research-based practices. *Exceptional Children, 66*, 163-171.

Voss, R. (2009). Studying critical classroom encounters: The experiences of students in German college education. *Quality Assurance in Education, 17*, 156-173.

Yiasemina, K. (2005). Throwing light into the black box of implementation: ICT in Cyprus elementary schools. *Educational Media International, 42*, 19-32.

Appendix A

Questionnaire (Interview 45-1hr)

Establishing Aim & Summary Activities of PBIS

PBIS (also known as PBIS) is an approach to supporting social responsibility for all students in the school. It consists of the following common features:

1. A small set of positively stated expectations are defined for all students,
2. These expectations are directly taught for all students,
3. Students are acknowledged for positive behaviour,
4. Clear, instructional consequences are defined for misbehaviour, and
5. Data are used to guide decision-making (Sugai & Horner, 2002)

- 1) Does this summarize the general aim of PBIS at your school? Yes/No
- 2) Does this describe the main activity of PBIS at your school? Yes/No

We are conducting a study of PBIS sustainability. Sustainability is described as the durable, long-term implementation of a practice at a level of integrity that affords continuation of important outcomes (McIntosh, 2008). This process commonly involves regeneration and adaptation as the process evolves and becomes a way of doing day-to-day business.

We believe that you are qualified to tell us about PBIS in your school.

What were the important events (i.e., specific behaviours or observable happenings) that helped the sustainability of PBIS in your school? These can be things you or another professional did or things that happened inside the school or outside the school. Please describe each event or behaviour completely and with as much detail as possible.

Helpful Factors & What It Means to Participant (What do you mean by ...?)	Importance (How did it help? Tell me what it was about ... that you find so helpful.)	Example (What led up to it? Incident. Outcome of incident. What happened after?)

(Butterfield, et al., 2009)

Affect : How did you feel about that? What did that mean to you?

Cognitive: What did you learn from that?

Possible Query Questions: How did this happen? Why? With Whom?

What and where did the incident happen? Who was involved?

What was done or said? How did you deal with the situation? What tactics did you use?

What resulted that made you feel this event benefited PBIS in your school?/What happened afterward?/What were the perceived consequences/benefits?

- (1) What were the important events (i.e., specific behaviours or observable happenings) that hindered sustainability of PBIS in your school? These can be things you or another professional did or things that happened inside the school or outside the school. Please describe each event or behaviour completely and with as much detail as possible.

Hindering Factors & What It Means to Participant (What do you mean by ...?)	Importance (How did it hinder? Tell me what it was about ... that you find so hindering.)	Example (What led up to it? Incident. Outcome of incident. What happened after?)

(Butterfield et al., 2009)

Affect : How did you feel about that? What did that mean to you?

Cognitive: What did you learn from that?

Possible Query Questions: How did this happen? Why? With Whom? What and where did the incident happen? Who was involved?

What was done or said? How did you deal with the situation? What tactics did you use?

What resulted that made you feel this event hindered PBIS in your school?/What happened afterward?/What were the perceived consequences/benefits

Appendix B

Interview Protocol Checklist

Participant Number: _____

Participant Initials: _____

Telephone Number: _____

Date: _____

Work e-mail Address: _____

Location: _____

Interviewer: _____

Interview Checklist

- Make certain that 2 pens, a timer, 2 audiotapes, gift certificate, 1 interview protocol sheet (blue), 1 interview questionnaire (white), and 1 participant question sheet (white) are available.
- Arrive in advance to set up and test equipment.
- Review interview protocol and review probes.
- Welcome participant and thank them for coming.
- Turn on both audiotapes and double check that they are working, and start interview.
- Reiterate informed consent, and obtain verbal consent.
- Read PBIS activity, aim statements, and complete consensus check.
- Inform participant that you will be making notes.
- Give a copy of the question sheet to the participant for reference during the interview.

- Confirm that both tapes are recording at mid-point check.
 - Switch audio-tapes when appropriate.
 - Recap the CI's recorded and make any necessary revisions.
-

Post Interview Checklist

- Acquire verbal permission to contact the participants should further clarification be needed upon transcription and/or extraction of critical data. Indicate participants answer: Telephone YES NO
- Let them know you will be contacting them in approximately one to two months to receive feedback on "fit" of the categories generated for the CI's they cited and acquire verbal agreement from participant to be contacted by e-mail or phone. Indicate participants answer: e-mail YES NO and/or phone Yes NO
- Give the participant the gift certificate and thank them for participating emphasizing the importance of their participation in this research project.
- Invite them to attend the presentation of results to be shared with the school/district level PBIS team in Sept 2011.

Appendix C

Independent Judge Protocol for Category Sort

Your professional support of this project to understand what events helped and hindered sustainability is greatly appreciated.

Step one. To begin you will be given 57 white index cards. Each card contains one statement about an event that either helped or hindered sustainability of PBIS. These statements represent the significant happenings cited by participants as being relevant to the durability of PBIS at the schools in which they have worked.

Step two. You will have been given sixteen blue index cards with a title and brief explanatory description of different categories that the cards may be sorted into. Read the category titles and sentences that summarize that category carefully before you begin. After reading the category headings and explanatory phrases thoroughly lay out the cards on a flat surface.

Step three. Read each white index card carefully and sort them into piles according to how they seem similar and conceptually linked to the title headings and explanatory description provided. The task is to place the cards that have the same idea/theme together. Read the whole event on the card before making a decision. Key words, repeated phrases may help you sort the cards into the appropriate categories. Some categories may include statements of events that were hindering under that theme or lacking please sort these into the same pile unless there is a category specifically describing the hindering events described. Sort the cards in any way that make sense to you. Some of the categories may have more or less cards; the cards do not have to be distributed evenly over the sixteen categories. We are interested in what make the most sense to you.

Guidelines:

1. Every card must be placed into a pile under a title provided.
2. Please pile of miscellaneous cards that are difficult to sort, or not similar to any of the categories.
3. Each card can only be placed in one pile.
4. No category will have more than five cards in it and other piles may have fewer cards.
5. Every pile will have cards in it.

If you have any concerns regarding the categories please let the primary investigator know, and if you find more than one way to sort a card this may be discussed after the sort has been completed.

Please make sure to sort the cards based upon how they cluster together and are related to each other. Sorting should not involve your subjective opinion of which events/categories seem more important, but rather based on cards share a similar idea. When you have completed sorting the cards return them in the envelopes provided including the blue card with the category title/description.

Appendix D

Tracking the Emergence of New Categories (Butterfield et al., 2009)

Date of CI Extraction	Participant #	Date Categorized	New Categories
May 8	5	May 25 th	Conflict in Personal Beliefs; Use of Data; Focus on Positives; Administrative Support; Adaptations; PBIS Team Effectiveness; Continuous Teaching; Involvement of New Personnel
May 10	2	May 25 th	External Expertise; Staff Ownership; Community of Practice; Priority
May 15	8	May 25 th	No new categories emerged
May 26	1	June 5	No new categories emerged
May 28	7	June 5	Staff Turnover
May 29	9	June 5	No new categories emerged
June 5	10	June 13	No new categories emerged
June 10	14	June 13	No new categories emerged
June 12	3	June 13	No new categories emerged
June 15	17	June 20	No new categories emerged
June 16	4	June 20	No new categories emerged
June 18	15	June 20	No new categories emerged

Date of CI Extraction	Participant #	Date Categorized	New Categories
June 22	6	June 27	No new categories emerged
June 23	11	June 27	No new categories emerged
June 26	12	June 27	No new categories emerged
July 3	13	July 6	

Appendix E

Participant Check Format

Email subject: PBIS Sustainability Study (3 brief follow-up questions)

Dear Participants,

First, thank you for taking the time out of your busy schedules last spring to provide the richly detailed interviews procured. Second, we want to tell how excited we are to see the analyzed data converging into the categories.

The next phase of this analysis involves getting your feedback on these categories. For the sake of efficiency and to respect your time, I have attached a brief summary of the larger descriptions that will be included in the final research document.

Specifically, we are asking you to read the attached categorical descriptions and comment if they seem to “fit” the experiences you cited during the interview. Some categories have been amalgamated under larger headings to present a more pragmatic understanding of what helped and hindered sustainability. An independent rater, expert rater and minimum participation rate also had to be reached for a category to be included in this framework. Furthermore the incidents extracted from the interviews had to be sufficiently detailed and observable to be included in the analysis. In the final analysis 13 categories emerged that meaningfully summarized the data gathered and met these criteria. On the attachment you will find an outline of the 13 categories.

Please carefully read the below category headings and descriptions, then reply to this email with **Yes/NO** and if **No** provide a written comment on the following:

1) Do the category headings make sense to you? **Yes No**

Comment:

2) Do the category headings capture your experience and the meaning that the incidents had for you? **Yes No**

Comment:

3) Are you surprised by any of the categories? **Yes No**

Comment:

Category Title and Description

1. Access to External Expertise refers to having contact with a recognized researcher (e.g., George Sugai, Kent McIntosh) a consultant (e.g., Nathan) or a trained district coach bringing in new information and tools such as SWIS. This category relates to **key leaders** with outside expertise presenting at staff and district meetings/training sessions providing feedback and validation to PBIS schools. They introduce research partnerships that bring in relevant evidence-based resources and training for staff increasing interest/motivation and making practices more effective and efficient. **PBIS coaches** are specifically trained to provide ongoing site-based implementation support and help staff trouble shoot and evaluate daily practices (i.e., filling in forms, use of data, and a point of contact). They are multi-level connectors who build capacity in schools. Note*Experiences in this category relate to a person in an expert role.

2. School Administrator Involvement refers to the school administrator actively supporting PBIS (e.g., being on the committee, chairing it, putting it on the staff meeting agenda, finding the time and resources); principals listening and respecting what has been done and why (e.g., supporting refreshers, data collection or aide forms; principal's consistently using and promoting PBIS language(e.g. principal goes into the classroom directly teaches grades four five about expectations, gives presentations), PBIS process including PBIS consequences for dealing with students. **Or Lack of support** refers to the school administrator having no and/or limited involvement; administrator having a different philosophy or not understanding the PBIS framework hindering the committee and school wide sustainability.

3. Use of Data refers to having observable/measurable information to track patterns (e.g. clearly defined behavior, time frame, location and motivation) to plan and adapt accordingly (i.e., clarifies decision making process). Data facilitates communication and accountability between staff, school-based team, school board, and parents. **Or Lack of data** refers to insufficient data to track students, evaluate plans and make objective decisions.

4. Priority (aka High Profile/District/Provincial Endorsement) refers to PBIS being in the spotlight (i.e., assigned value/importance). When the district or ministry makes an initiative a priority (e.g., puts social responsibility in the curriculum, district goals and/or school contract agreement) it provides validation and affects funding, in-servicing, training, accountability which in turn affect sustainability. **Or when PBIS is not high profile and there are competing initiatives** this is a hindrance to sustainability.

5. Connection to a Community of Practice (aka Networking) refers to Annual provincial PBIS conference, district network engaging in multi-level dialogue facilitating the developmental process of change. Forums for presenting, sharing and listening to others ideas/resources/celebrations allow the conversation of PBIS to continue. PBIS schools presented and collaborated with other PBIS schools. It refers to communication exchanges which might be philosophical and/or pragmatic across various professional levels creating ongoing buy-in, reflection, and rejuvenation.

6. Staff Ownership (aka Staff Driven) refers to the idea that PBIS is teacher generated and teacher owned as opposed to being imposed by district or administration. Teachers were on board (e.g., majority buy-in; felt it was important; high level of involvement in planning/activities), and supported committee initiatives, matrix, and expectations. This category also includes lead teachers having a strong voice providing resources, feedback support. School champions who school staff keep people accountable; they build capacity in other staff members and they follow through. School champions have knowledge, history, expertise, collaborative skills, credibility and drive which enhance implementation fidelity and durability. (Internal)

7. Involving New Personnel refers to new staff/fresh blood coming in with new ideas/fresh perspective, keenness/energy; early recruitment onto PBIS team builds capacity and increases immersion into PBIS school culture. This category also includes procedures to make sure incoming staff understand school expectations and can maintain daily practice of PBIS in their classrooms (e.g., information binder, inviting them to PBIS meetings, get them up to speed). Orienting new teachers to the PBIS culture of the school (e.g., PBIS training is an expectation and is on the job posting).

8. Adaptation (aka Translation to Local Context or Change in Context) refers to the activity of keeping core elements while adapting daily practices to make them more efficient (e.g., simplifying forms) and effective (e.g., changing a reward system). This category includes customizing procedures and practices to “fit” local school context (e.g., local cultural translation of expectations, adapt practice to demographics). Also involves reevaluating systems and bringing in new/refreshing ideas to rejuvenate staff interest and enthusiasm.

9. School Team Effectiveness (aka PBIS Team/Committee Effectiveness) refers to the organizational structure that operates within the school and involves regular meetings with a format, decision making process, and note taking. It is a forum for discussing behavior concerns; it is a vehicle to train and in-service staff, working committee that reports back to larger staff and a place to celebrate accomplishments. Reports and makes recommendation to larger staff. PBIS team is well-formed (i.e., board representation of staff), high profile with responsibilities, and accountability to get the job done. **Or lack of this organizational structure** such as no regular meetings, no governance, poor collaboration or team members are fragmented this hinders PBIS sustainability.

10. Continuous Teaching (aka Ongoing Teaching/Re-teaching to Build a Common Language/Common Understanding) includes continuous teaching of core features (e.g., activating matrix, clearly stating expectations) through classroom lessons, demonstrations, presentations, constant review (e.g., Sept., Jan. , March), and visuals highlighting core features integrated throughout the school. This seeing it . . . hearing it . . . all the time develops a consistent unified culture around PBIS. **Or when there is a lack** of ongoing activation students/teachers forget and consistency is weakened.

11. Focus on Positives refers to the experience of rewards (student/teacher incentives, PBIS certified school) seeing positive outcomes/change (i.e., student behavior improves), and receiving positive feedback/recognition. When what you are doing is perceived as being positive; the experience of feeling you are making a difference. This category includes the

importance of keeping reinforcements potent. **Or when reinforcements are lacking** or no longer novel/effective this hinders sustainability.

12. Staff Turnover (aka Mobility of Staff) refers to the hindering event of staff turnover (e.g., moving, temporary staff, maternity leave etc.). Creating a situation where staff doesn't understand daily PBIS practices (e.g., using Fantastics or aide forms) or the philosophy. When school champions leave who have been a critical part of the PBIS committee there is lack of leadership, direction, weakening of implementation or staff have less confidence to make decisions. Even when you have 100% buy-in, transiency can change this at anytime.

13. Conflict in Personal Beliefs/Mistaken Beliefs refers to persons having different philosophies/perspective (e.g., PBIS doesn't reward well-behaving Yellow/Green Zone kids fairly; everything should be equal; external versus internal rewards; perception that aide forms are punitive; teachers should teach subjects and administration should deal with behavior; PBIS is about rules and consequences; don't believe there is a need for school-wide program) leading to different degrees of buy-in and implementation fidelity (i.e., inconsistency in filling out forms/data collection, handing out of rewards). Different beliefs and tolerance levels can cause fragmentation, confusion and frustration, thereby hindering sustainability.