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## Evaluation of a School-led Sustainable Class Wide Intervention Programme to Improve Elementary Children's Social Emotional and Academic Performance

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### ABSTRACT

Short term experimental studies by DiPerna and colleagues have demonstrated the efficacy of the Social Skills Improvement System (SSIS) to measure and improve the social skills and academic functioning of students from Preparatory year to Grade 3 and to decrease problem behaviours. This longitudinal school-led project applied the multi-tiered assessment and intervention components of the SSIS to achieve sustainable outcomes. In each of three project years up to 16 teachers completed the SSIS Performance Screening Guide for approximately 380 students, with nearly half having special needs. Students screened by their teachers as having low levels of prosocial behaviour were assessed using the comprehensive SSIS Rating Scale. The collective data informed the social skills goal priorities among 10 skills targeted and taught by classroom teachers using the SSIS Classwide Intervention Programme (CIP). Intervention effectiveness indicators included change in prosocial behaviour, academic achievement, problem behaviours, wellbeing, and attendance. Students showed marked improvement on all outcome indicators across the three project years, resulting in an improved school climate. Limitations to the evaluation are discussed, followed by recommendations for other schools to adopt similar interventions to achieve sustainable improvement in students' social skills and other outcomes, and school climate.

### KEYWORDS

Academic enablers;  
additional needs;  
intervention; school culture;  
school-wide; social  
emotional learning;  
sustainability; wellbeing

## Introduction

Within school settings, there is strong evidence that students' social emotional skills, academic achievement, problem behaviours, and mental health are highly inter-related (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Grant et al., 2017). Yet, many educators continue to focus on behaviour management as a primary strategy to improve student behaviour because of its perceived direct impact on decreasing problem behaviours and the possibility of academics improving with a reduction in problem behaviour. The acquisition and performance of socially desired behaviours, however, are not always the focus of behaviour management programmes. Thus, many students who have poor

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social and emotional skills might be unable to efficiently learn and perform desired behaviours without more direct instruction and practice opportunities for these behaviours. As a result, many educational leaders are focusing on explicitly teaching social emotional learning (SEL) skills as alternatives to problem behaviours. Many SEL skills are also known to function as academic enablers (DiPerna, Volpe, & Elliott, 2002, 2005), as they enhance engagement and time spent on academic tasks.

The evaluation study reported provides an examination of one Australian state (public) school that followed the pathway towards explicitly teaching and improving children's desired behaviours. Specifically, educators at the school adopted and used a social skills intervention programme consistently for four years to achieve (a) significant improvement in students' social emotional skills, (b) reductions in problem behaviours, (c) improvements in academic achievement outcomes, and (d) better mental health among the school community. Each of these domains of functioning is examined followed by a description of characteristics of successful social behaviour interventions and their implementation by a school that achieved long term and sustainable outcomes.

### Social Skills, Social Emotional Learning (SEL), and Mental Health

According to Elliott, Frey, and Davies (2015), social skills have two key dimensions. First, social skills consist of both verbal and nonverbal behaviours. Second, these behaviours often are situation-specific. Collectively, these two dimensions stress the interactive, context-specific nature of social skills that is reflected by a widely used and functional definition: *Social skills are socially acceptable learned behaviours that enable an individual to interact effectively with others and avoid or escape negative social interactions with others* (Gresham & Elliott, 2008).

Davies and Cooper (2013) suggested that social skills are a subset of social emotional learning (SEL) competencies. Durlak et al. (2011) indicated that SEL covers a broad conceptualisation of core 'cognitive, affective, and behavioural competencies' that include 'self-awareness, self-management, social awareness, relationship skills, and responsible decision-making' (p. 406). In terms of a definition of SEL, *'Social Emotional Learning is the process of developing the ability to recognise and manage emotions, develop caring for others, make responsible decisions, problem solve using non-conflict strategies and establish positive relationships'* (The Collaborative for Academic, Social and Emotional Learning [CASEL], 2005).

There is substantial evidence that children and youth need social emotional skills to complement and enable their academic skills (e.g. Weissberg & Cascarino, 2013; World Economic Forum, 2016). Additional research in several countries – Australia, Canada, Denmark, England, and the United States – has demonstrated that SEL skills are essential for students to meet the challenges of learning, prevent engagement in risky personal behaviours, prepare them for the demands of a changing workplace, and ultimately, promote their wellbeing (e.g. Elliott et al., 2015; DiPerna & Volpe, 2002; Durlak et al., 2011; Guhn, Gadermann, Almas, Schonert-Reichl, & Hertzman, 2016; Miyamoto, Huerta, & Kubacka, 2015; Nielsen, Meilstrup, Nelausen, Koushede, & Holstein, 2015).

Children who demonstrate high levels of social and emotional wellbeing are more likely to do better at school and in life, and integrating social, emotional, and academic factors in school leads to effective learning (CASEL, 2005). When emotional needs are

satisfied, children attend school more and are more attentive, more motivated to learn, and less likely to be suspended or expelled (Durlak et al., 2011; Malecki & Elliott, 2002). Conversely, children with emotional and social problems are more likely to experience lower educational achievement and later in life to experience teenage pregnancy, unemployment, drug and alcohol misuse, violence, and crime (Adi, Killoran, Janmohamed, & Stewart-Brown, 2007). More recently, Jones, Greenberg, and Crowley (2015) indicated that social-emotional skills in kindergarten were associated with key young adult outcomes across multiple domains, including education and mental health.

Social emotional wellbeing increasingly is recognised as central to enabling complementary cognitive and non-cognitive characteristics necessary for personal success. Cognitive competencies include those related to academic abilities and achievement-oriented capacities, such as problem solving. Non-cognitive competencies cover everything else, such as behavioural characteristics, emotional regulation, attention, self-regulation, and social skills (Jones et al., 2015). This designation, however, oversimplifies the complexity of characteristics, and the role of cognition in attitudes, behaviour, and the conduct of social relationships. The two skill sets interact to enable success in school and life with achievement driven by intelligence and shaped by self-regulation, positive attitudes, motivation, and conscientiousness. School success requires young children to have interpersonal skills to successfully navigate social settings and have positive interactions with adults and peers at school and to use intellectual ability, social interactions, attention, and self-control to culminate in learning (Duncan & Magnuson, 2011).

### Knowledge versus Implementation Gap for SEL Programmes

While the importance of social and non-cognitive skills for student wellbeing and learning is widely recognised by educational authorities across the world (CASEL, 2005; Davies, Cooper, Kettler, & Elliott, 2015; Miyamoto et al., 2015), there is limited implementation of SEL programmes and interventions in schools. Miyamoto et al. (2015) suggested that this gap is caused by the perception that social emotional skills are difficult to improve, the impression that significant training and resources are required, and that social emotional skills are difficult to measure.

Wells, Barlow, and Stewart-Brown (2003) provided an examination of over 8,000 articles with 425 closely reviewed detailing universal approaches to mental health promotion in schools. Positive mental health programmes included interventions to improve emotional and social functioning, emotional health, and wellbeing. Their review indicated that long-term interventions that promote positive mental health of all students and involve change in school climate are likely to be more successful than brief class-based mental illness prevention programmes. In an Australian study, Rowling (2009) indicated the need for school leadership, including distributed lateral leadership, and teacher efficacy in ensuring whole school change and improvement in social skills, behaviour, and achievement that then lead to improved mental health and wellbeing outcomes. Barblett and Maloney (2010) conducted a literature review, and their findings endorsed the importance of developing positive social and emotional growth in young children but raised concerns about the complexities of assessing social and emotional competence and wellbeing. However, Jones et al. (2015) highlighted the importance of assessing social emotional competence and wellbeing to identify children at risk and provide intervention to address

areas of need as a means of minimising negative life outcomes. In addition, Bywater and Sharples' (2012) review of social and emotional interventions in the UK recognised that while some social emotional interventions appear successful, effective programmes were not being scaled up or evaluated for cost effectiveness and needed ongoing outcome and process evaluation.

With these types of challenges in mind, DiPerna and colleagues initiated a cluster randomised trial of the SSIS Classwide Intervention Programme (CIP) in primary classrooms. This project tested the efficacy of the CIP across two school districts – one urban and the other rural – and seven elementary schools. Multiple cohorts of students ( $N = 1098$ ) and classrooms ( $N = 96$ ) participated. The student sample was drawn from first and second grade classrooms and representative of the U.S. student population. Participating classrooms were assigned randomly to treatment (CIP) or business-as-usual control conditions. Results indicated that CIP participation yielded positive changes in students' prosocial behaviour across the primary grades (DiPerna, Lei, Bellinger, & Cheng, 2015, 2016; DiPerna, Lei, Cheng, Hart, & Bellinger, 2017). Second-grade participants demonstrated improvement (small-moderate effects) in their overall social skills as well as in the specific domains of communication, cooperation, responsibility, empathy, and social engagement. Tests of interactions indicated that students from classrooms most at-risk due to lower social skills prior to treatment benefitted most from CIP participation. Though effect sizes were slightly smaller, first-graders also demonstrated positive changes in social skills post-CIP, particularly in social engagement, empathy, and assertion.

Similar to the proximal social behaviour outcomes, CIP implementation also yielded positive changes in students' academic motivation and engagement (intermediate outcomes). Effect sizes again were small-moderate for students in second grade and slightly smaller in magnitude for first graders. With regard to academic skill (long-term) outcomes, results for second grade indicated that CIP participation indirectly affected early mathematics skills (as measured via STAR-standardised computer-adaptive tests) by increasing students' academic motivation. CIP participation yielded significant positive changes in the early literacy skills of students with identified disabilities relative to their peers in business-as-usual classrooms (DiPerna et al., 2016). Beyond these student outcomes, teachers generally found the CIP curriculum to be a time-efficient (20–22 minutes per lesson), appropriate, and acceptable approach to promote positive student behaviour in their classrooms. They also indicated the scripted format of the lessons and aligned supporting materials (student workbooks & videos) facilitated quality implementation. The SSIS CIP is the programme and its potential to have a triple positive impact – increase SEL skills, decrease problem behaviours, and increase academic achievement – featured in the remainder of this case study report.

## **Bumbamba State School and the SSIS Classwide Intervention Programme**

### ***The Setting***

Bundamba State School (BSS) is a low SES National Partnership school with a student population of approximately 650. The Index of Community Socio-Educational Advantage (ICSEA) value for BSS is 903, with the average value being 1000. The ICSEA value (ACARA, 2014) is based on family characteristics including parental occupation, and the school

education level they attained, and three school characteristics: regional or remote; the proportion of indigenous students; and the proportion of students with language backgrounds other than English. In the last five years, school data have indicated that up to 45% of student's required extra support, with 33% of preparatory students referred for speech and language support and developmental delays. In 2011, academic achievement was below National Standards. For example, according to the National Assessment Programme- Literacy and Numeracy (NAPLAN) Performance Measures, 45% of Year 3 students in Australia achieved results within the top two bands of reading, but only 16.2% of BSS Year 3 students achieved the same standard. In 2011 the school community reached an agreement to target social and emotional learning as a key initiative of a four-year National Partnership Plan to provide a school-wide approach in supporting the mental health and academic learning of students.

As outlined by Davies et al. (2015), a number of initiatives had been embraced by BSS leaders as part of providing a supportive school environment with student wellbeing as a priority. The key focus areas were SEL, behaviour problems, and learning. The school aimed to foster universal practices to promote student wellbeing and build capacity in teacher skill to ensure sustainability in programmes and interventions. School-wide positive behaviour support (SWPBS) was introduced into the school in 2007 to better manage behaviour, and while some gains were evident, more was required.

The school Guidance Officer (GO) researched SEL programmes and identified that the Social Skills Improvement System CIP (Gresham & Elliott, 2008) based on best practice and sustainability could dovetail into current school universal services. The school leadership was committed to providing resources, materials, and professional development (PD) to assist teachers in the delivery and integrity of the programme and to support research. A behaviour specialist/Student Welfare Officer (SWO) was appointed for 4 years to manage targeted support for more challenging behaviours and was also a key resource in training class teachers to implement the SSIS. The GO was employed for an extra two days a week to assist in this process, and an offline curriculum team was available to assist teachers in differentiating curriculum.

Before implementation, all teaching staff attended an information session on current research and best practice around SEL, its relationship to academic performance and behaviour problems, an overview of the SSIS, and an outline of the research project. In addition, PD was provided around the implications of poverty, family dysfunction, and abuse in placing students at risk for social, emotional, and mental health issues, and disengagement from the education system. Teachers were challenged to consider not only the importance of teaching literacy and numeracy to improve academic outcomes, but also the importance of developing social and emotional competencies, given the social challenges facing students at the school. The intervention aimed to promote resilience and to broaden the social, emotional, and behavioural repertoires of Preparatory (Prep) to Year 3 students.

### ***The Intervention***

The SSIS assessments and intervention are conceptualised as a multi-tiered model of student support that enables efficient and effective class wide interventions. The assessment components of the SSIS have been applied in Australian schools (Kettler, Elliott,

Davies & Griffin, 2012) and yielded valid scores for Australian samples of students (Sherbow, Kettler, Elliott, Davies & Dembitzer, 2015). The SSIS Screening assessment generally is applied to all students, and one or more of the Rating Scales (teacher, parent, or student) is additionally used with students with low levels of prosocial behaviours to identify target social skills for instruction. Normally the Rating Scale drives individual interventions, but in this project, it was used to target the more common skill deficits and drive interventions for entire classes.

To address the needs of all students and those with additional needs, the programme and its implementation were adapted, without diminishing the integrity of the programme. In brief, verbal material was simplified, multi-step tasks were separated and supported with memory aids, keywords were repeated and connected to role-plays that were increasingly used, visual cues were used to trigger recall, children moved to the floor and were instructed via a smartboard, and lessons were presented via PowerPoint format. This intervention project aimed to improve children's social skills and related academic functioning and decrease problem behaviours to achieve improved mental health and wellbeing outcomes. Thus, the design of the intervention strategies and the research were driven by practical concerns of time and burden-reduction on teachers so that they could focus on the implementation of appropriate context relevant social skills units for all students in need. The notion of practitioner-developed-and-managed interventions has been noted by many researchers as an issue that can impact interventions. Because of the complexity of undertaking interventions in different settings, Powell et al. (2015) suggested that implementation strategies should be selected and tailored to better address contextual needs and proposed various methods to do so. Dingfelder and Mandell (2011) also saw strength in practitioners re-inventing or modifying practices and diffusing innovative intervention strategies to others over time. In these interventions, teachers are motivated to solve problems and select methods that make practical sense and are context relevant.

The evaluation study design was a secondary consideration. Rather than be concerned about generalisation of their findings and the use of control groups, where some students and teachers are temporarily denied what is perceived to be an effective intervention, all teachers met student identified needs through SSIS intervention implementation. As a result, a pre-post intervention evaluation design was used and was regarded appropriate to meet the users' and schools' needs for meaningful data.

The Social Skills Improvement System Classwide Intervention Programme (SSIS CIP, Elliott & Gresham, 2007) was used at BSS with children in Prep to Grade 3. The SSIS CIP is a manualised, commercially available intervention programme that teaches social skills across seven domains: Communication, Cooperation, Assertion, Responsibility, Empathy, and Self-Control. Social skills are taught using a six-step instructional sequence: (1) Tell, (2) Show, (3) Do, (4) Practice, (5) Monitoring Progress, and (6) Generalise. In each step, one strategy provides the basis for instruction, and other strategies may be concurrently used to augment learning. For example, in the Tell phase, while coaching is the focal point of the lesson, elements of modelling may be used to illustrate examples of the featured skill, and social problem solving can help students to discuss and understand the importance of learning the skill.

The 6-step instructional model is expected to lead to improved acquisition and performance of social skills and generalisation to other settings/social situations. Also,



improved social skill performance is expected to lead to improved academic performance (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000; DiPerna & Elliott, 2002; Malecki & Elliott, 2002; Wentzel, 2009).

The SSIS-CIP is implemented with an entire class of students (18 to 25 children) and most often conducted by a teacher; although, teachers and the school counsellor/psychologist sometimes collaborate to deliver the programme. It is conceptualised as a 10 to 12 week programme of three 30-minute in-class sessions per week with each week targeting one of the 'top 10' social skills: (1) Listen to others, (2) Say please and thank you, (3) Follow the rules, (4) Pay attention to your work, (5) Ask for help, (6) Take turns when you talk, (7) Get along with others, (8) Stay calm with others, (9) Do the right thing, and (10) Do nice things for others.

## The Current Study's Focus

Davies et al., (2015) reported the results of the first year of a 4-year longitudinal study (2012–2015) at BSS. This report documents the implementation and outcome effects of using evidence-based practices during the period of 2013–2015 in the same high needs school with students with and without additional learning needs. This case study focused on collecting evidence to address five evaluation questions. Specifically, does the SSIS CIP: (1) Improve students' social skills, (2) Reduce students' problem behaviour incidents, (3) Influence students' academic achievement indirectly, (4) Influence students' mental health and staff wellbeing, and (5) Influence a school's climate and culture when implemented with integrity and sustained over multiple years.

## Method

### *Sample of Students and Teachers*

In each of the three project years, the total number of students participating in the project varied from 317 (2013) to 273 (2015) in 15 classrooms across Preparatory (Prep), Grade 1, Grade 2, and Grade 3. Prep is a foundational first year of school for all children who turn 5 by June 30 in the year they enrol. Prep is a full-time programme with a defined curriculum. The demographic characteristics of gender, school year, English as a Second Language, and Aboriginal and Torres Strait Islander of the sample varied only slightly across these 3 years. The proportion of students with additional needs (SWAN) to non-SWAN students showed some variation across years, with SWANs more represented in 2015 (63%), and less so (35%) in 2014. Table 1 provides detailed demographic information for the 2015 sample that is highly representative of the majority of project years.

In terms of stability of teacher involvement over the three years, 27 teachers participated in the 15 classrooms with seven teachers involved across all years. Of the 15 teachers involved in the first year of the programme (highly representative of the following years), 14 were female, 13 had a Bachelor qualification, while 2 were postgraduates. Teaching experience varied from 1 to 31 years and averaged 6.9 years ( $SD = 5.4$ ). Informed consent was obtained from all participants included in the study. The project was approved by a University Research Ethics Committee (EDN/25/12/HREC) and by the School Principal.



**Table 1.** Demographic information by group in project year 4 at time point 1.

Variable	Non-SWAN n (% of total)	SWAN* n (% of total)	Total n (% of total)
Gender			
Male	60 (19%)	107 (33%)	167 (52%)
Female	79 (24%)	78 (24%)	157 (48%)
School Grade			
Prep	2 (1%)	69 (21%)	71 (22%)
1	35 (11%)	47 (15%)	82 (25%)
2	53 (16%)	30 (9%)	83 (26%)
3	49 (15%)	39 (12%)	88 (27%)
English as a Second Language			
No	128 (40%)	159 (49%)	287 (89%)
Yes	11 (3%)	26 (8%)	37 (11%)
Aboriginal, Torres Strait Islander			
No	126 (39%)	160 (49%)	286 (88%)
Yes	13 (4%)	25 (8%)	38 (12%)
Total	139	185	324

\*Students were classified as having a disability (SWAN) if they received specialised assistance due to diagnosed disability or special needs requiring support.

## Key Measures and Intervention Materials

### SSIS Performance Screening Guide (SSIS PSG)

This class-wide and universal screening component of the SSIS Multi-tiered Assessment and Intervention Model is a criterion-referenced measure that efficiently (25 minutes per class) assesses student performance against age- or grade-level expectations for (a) prosocial behaviour, (b) motivation to learn, (c) reading, and (d) mathematics. Each of the performance areas has a behaviour-anchored, 5-level set of performance descriptors that summarises several weeks of teachers' observations of, and interactions with, students in their classrooms. For each skill area, the classroom teacher reviews the behaviours that define each performance level and chooses the level that best represents each students' current functioning. In addition, the SSIS PSG provides a brief statement about how much intervention is indicated by each performance level. In general, a performance evaluation of 1 indicates a high level of concern and that intervention is needed immediately, whereas a performance evaluation of 5 indicates no concern and no need for intervention at this time.

Findings for the reliability and utility of the PSG indicate test-retest reliability estimates range from  $r = .68$  to  $r = .74$  across skill areas, and inter-observer reliability estimates range from  $r = .55$  to  $r = .68$  across skill areas. Teachers who used the PSG during initial field test trials unanimously agreed that the instructions were clear and easy; information was sufficient; definitions of skill domains were useful; descriptors clearly referred to useful behaviours, and helped sort students into levels; colours and numbers were helpful; and guides were easy to use.

### SSIS Rating Scales (RS)

The teacher version of the SSIS-Rating Scale (RS) includes 46 social skill items across the seven domains outlined earlier. Each item is rated on a 4-point scale (0 = Never, 1 = Seldom, 2 = Often, and 3 = Almost Always) based on the rater's perception of the frequency of the behaviour. In addition, both versions use a 3-point Importance rating (0 = Not Important, 1 = Important, 2 = Critical) to help identify behaviours requiring

intervention. The teacher version also includes a Problem Behaviour Scale (30 items) that assesses Internalising, Externalising, Hyperactivity, Bullying, and Autism Spectrum behaviours. Finally, an Academic Competence scale (7 items) assesses perceptions of a student's performance in reading and maths, academic motivation, parental support, and general cognitive functioning. Teachers complete all scales at approximately 20 minutes per student. Rating results on the Social Skills, Problem Behaviours, and Academic Competence Scales are expressed as standard scores. Embedded in the set of 46 social skills items is the *Top 10* subscale of 10 items directly aligned with the 10 social skills taught in the CIP. These items provide a psychometrically sound short form of the RS as documented in the SSIS Technical Manual (Gresham & Elliott, 2008).

The SSIS-RS Manual provides extensive validity evidence based on test content, internal structure, inter-correlations among scales and subscales, item-total correlations, and relations with other variables (Gresham & Elliott, 2008). Inter-correlations among scales and subscales for each form are moderate to high for the social skills and problem behaviour scales. Item-total correlations across forms by age tend to be moderate to high, many of which exceed .75-.80. With the BSS samples over the three years, coefficient alphas all exceeded .83 at the subscale levels and .90 for the total scales. Correlations between the SSIS-RS and the Behavioural Assessment System for Children, 2nd Edition (BASC-2; Reynolds & Kamphaus, 2004) are moderate to high, depending on the scales and subscales. For example, the median correlations between the SSIS-RS total social skills score and the BASC-2 social skills score are .78 and .69 for the teacher and parent forms.

### Other Outcome Measures

The NAPLAN annual assessment for all Australian students in Years 3, 5, 7 and 9 is made up of tests in the four areas (or 'domains') of reading, writing, language conventions (spelling, grammar and punctuation), and numeracy. For the purposes of this study, the annual assessment of the Year 3 cohort provided a standardised assessment of academic competence in literacy and numeracy. Problem behaviours were measured by reported numbers of behavioural incidents, numbers of students involved, and school disciplinary absences. School culture was measured through a State-wide School Opinion Survey of Parents, Teachers, and Students and supported by attendance figures as a numerical measure.

### SSIS Classwide Intervention Programme (CIP) Programme

The SSIS CIP is a theory-driven, evidence-based treatment (EBT) focusing on 10 of the most important social skills that are included in the SSIS CIP units (see Table 2). As noted earlier, it

**Table 2.** The SSIS CIP units taught.

Unit Number	Social Skill
1	Listen to others
2	Say please and thank you.
3	Follow the rules.
4	Pay attention to your work.
5	Ask for help.
6	Take turns when you talk.
7	Get along with others.
8	Stay calm with others.
9	Do the right thing.
10	Do nice things for others.

is designed to be implemented by teachers in classrooms for children from preschool to middle school. The SSIS CIP skill units are supported with student booklets, video vignettes, and other resources to foster student involvement and parent awareness. The CIP also involves a number of communication, progress monitoring, and instructional tools designed to enhance interactions among teachers, students, and parents. Each of the 10 CIP skill units is taught across three 25- to 30-minute lessons per week for 10 weeks (a total of 30 lessons). Teachers are instructed to review their class-wide progress-monitoring data to identify priority skills that need to be re-taught periodically during the total programme. The CIP manual provides detailed lesson plans, including instructional objectives, instructional scripts (detailed use of video vignettes and integration of student activity books), and take-home notes for parents. (Interested readers can see all 10 Skill Units, their lesson scripts, and resource materials for the SSIS CIP by visiting <https://thepeakproject.org/the-project-peak/>. Please note that the current PowerPoints have been refined, but were based on ones originally generated by BSS teachers and staff.)

## Procedures

### *Teacher Training and Data Collection Strategy*

In early 2012, all teachers of Prep to Year 3 ( $n = 15$ ) were provided with information sessions and training on the SSIS assessment tools and interventions and teaching social skills led by the GO and SWO (Davies & Cooper, 2013; Davies et al., 2015). Teachers were trained to complete a class wide SSIS-PSG to evaluate all students in their class on prosocial behaviour and other key motivational and academic skills against pre-established criteria. Those students who were judged to be at Level 1 and 2, indicating significant performance and/or acquisition difficulties in prosocial behaviour, were identified for administration of the SSIS Rating Scales – Teacher (SSIS-RS). Almost 11% were judged to be at lowest Level 1 and more than 21% at Level 2. For this third of students, the SSIS-RS was completed by class teachers for each individual student with the GO (to support rater reliability) before or after school. The most *frequently occurring* social acquisition deficits and corresponding targeted interventions reported by teachers on the Rating Scales were mapped and evaluated to inform the design of the universal intervention to be delivered by the class teacher to the whole class. At the end of the year (Time 2), teachers readministered the Rating Scale for these targeted students to evaluate the effectiveness of the intervention. The class wide screening tool was also completed to ascertain the change in the profile of all students in their class. For the next three years, training as described above was offered to teachers new to the project, and support and mentoring was provided by the GO and other trained teachers.

### *Intervention Support and Integrity*

Intervention integrity was documented with each teacher being observed once a term by members of the leadership team. Additionally, a part-time support person assisted teachers in developing teaching resources such as PowerPoint slides and videos, and these resources were shared among teachers. The SSIS Observation Form guided

observations and feedback. Since the school was already using instructional coaching, this model was also used in providing feedback and teacher mentoring. The first two authors of this article also observed a sample of 12 randomly selected classrooms over the project to provide further integrity assurance. In addition, teachers were asked to complete a Performance/Action Plan to identify gaps in their skills that required further training. Teachers were released for 30 minutes to meet with the GO and the Deputy Principal to review these plans and the lesson delivery matrix and to receive feedback.

## Evaluation Design and Data Analyses

A pre-test post-test intervention evaluation design was used to examine the effects of the SSIS-CIP intervention on the social behaviour and academic performances of students as assessed by their classroom teachers within each year. The pre-test (Time 1) involved the PSG for all participating students a week to 10 days prior to the start of the intervention. All students receiving a PSG rating of either 1 or 2 (indicating at-risk for social behaviour problems) on the Prosocial Scale were also rated with the comprehensive SSIS-Rating Scale. Approximately 2 months after intervention (Time 2), all students were again rated on the PSG, and those previously identified at-risk students were re-rated on the SSIS-RS.

Descriptive statistics were calculated for all measures. The main treatment effect was tested using paired samples t-tests, comparing scores at Time 1 and Time 2, across the eight scores (PSG Prosocial, PSG Reading, PSG Maths, PSG Motivation to Learn, RS Social Skills, RS Problem Behaviour, RS Academic Competence, and RS Top 10 Social Skills) yielded by the SSIS measures. A parallel set of t-tests subsequently was run on the two subsamples (students with additional needs [SWAN] and Non-SWAN) defined by disability status. Because the same tests were run on overlapping samples, a one-directional alpha of .025 was used for each test. Cohen's *d* (a measure of effect size) was calculated by subtracting the Time 1 mean from the Time 2 mean and dividing the difference by the Time 1 standard deviation. Effect sizes (ES) of < .20 were defined as small, between .20 and .80 as medium, and > .80 as large. Treatment by disability status interactions were tested using independent samples t-tests on the difference scores (Time 2 – Time 1) for each disability status group. An alpha of .05 was used for the interactions. For interaction effect t-tests, Cohen's *d* was calculated to document effect sizes for the differences in scores.

## Results

The evidence regarding the SSIS CIP's influence on students' social behaviour and academic functioning, their teachers' practices, and school climate was documented across the project years. A variety of analyses of data are reported that address the five evaluation questions.

### Evidence that the SSIS CIP Influences Students' Social Skills (Evaluation Questions 1 & 2)

Detailed results based on the PSG and RS were gathered for each of three years, 2013–2015, examined. Because the 2015 (Project Year 4) sample was regarded as

representative of the three project years, initial analyses focus on this Project Year. Table 3 provides aggregate measures of all students from Prep to Grade 3. At Time 1, the mean scores on the PSGs for the full student sample ranged from 2.8 to 3.4 compared to a range from 3.5 to 3.7 in the US national normative sample. This difference represents about a half standard deviation on each PSG and confirms the BSS sample represents a rather large number of students with general social and academic difficulties.

As documented in Table 3, all PSG scores increased from Time 1 to Time 2, and these increases were statistically significant. Medium effect sizes were obtained for changes from Time 1 to Time 2 for Reading, Math, and Prosocial Skills, and a small effect size was obtained for changes from Time 1 to Time 2 for Motivation to Learn on the PSG.

On the RSs for the subsample of at-risk students, teachers' ratings of Social Skills and Academic Competence scores increased from Time 1 to Time 2, while Problem Behavior remained virtually unchanged from Time 1 to Time 2. The increase in social skills was statistically significant, and perhaps more importantly, medium effect sizes were obtained for changes from Time 1 to Time 2 on the Social Skills Scale and on the Top 10 Social Skills (the same skills taught in the CIP), and a small effect size was obtained for changes from Time 1 to Time 2 in Academic Competence as measured by the Rating Scale.

Examining these scores further for the Non-SWAN and SWAN student groups, we observe in Table 4 that at Time 1, the mean scores for the Non-SWAN sample ( $n = 102$ ) on the PSGs ranged from 3.5 to 3.9. Among Non-SWANs, scores increased from Time 1 to Time 2 for all four scales. Specifically, these changes were statistically significant and ranged from a small effect size (Motivation to Learn) to medium effect sizes (Reading, Maths, Prosocial skills).

At Time 1, the SWAN sample ( $n = 170$ ), as documented in Table 5, was rated lower across the PSGs than was the standardisation sample from the United States. Mean scores on the PSGs ranged from 2.3 to 3.1 in the SWAN sample, compared to a range from 3.5 to 3.7 in the normative sample. This difference represents more than a standard deviation on each PSG. Among SWANs, all scores increased from Time 1 to Time 2. These changes were significant for Reading, Math, and Prosocial Skills. Medium effect size changes were observed for Reading, Math, and Prosocial Skills. A small effect size change was observed in Motivation to Learn. No significant differences in motivation were observed from Time 1 to Time 2 for SWANs.

**Table 3.** Means, standard deviations, difference scores and effect sizes for the full sample during project year 4.

Subscale	Time 1		Time 2		Difference	Cohen's	Category
	Mean	SD	Mean	SD		d	
SSIS Performance Screening Guides (n = 273)							
Reading	2.8	1.3	3.3	1.3	.5*	0.38	Medium
Math	2.8	1.2	3.1	1.2	.3*	0.25	Medium
Prosocial	3.4	1.2	3.6	1.1	.2*	0.25	Medium
Motivation	3.4	1.2	3.6	1.3	.2*	0.17	Small
SSIS Rating Scales (n = 62)							
Social Skills	80	12	84	11	4*	0.33	Medium
Problem Behavior	122	18	121	16	−1	−.04	None
Academic Competence**	74	10	76	9	2	0.15	Small
Top 10 Scale	105	13	108	11	3	0.21	Medium

\*Differences were significant at  $\alpha = .025$ , one-tailed. \*\* $n = 40$  for Academic Competence Scale.

**Table 4.** Means, standard deviations, difference scores and effect sizes for the non SWAN sample during project year 4.

Subscale	Time 1		Time 2		Difference	Cohen's	Category
	Mean	SD	Mean	SD		d	
SSIS Performance Screening Guides (n = 102)							
Reading	3.6	1.1	4.0	1.0	0.4*	0.30	Medium
Math	3.5	1.1	3.7	1.1	0.2*	0.20	Medium
Prosocial	3.9	.97	4.1	.97	0.2*	0.20	Medium
Motivation	3.9	1.1	4.1	1.0	0.2*	0.18	Small

\*Differences significant at  $\alpha = .025$ , one-tailed. Also note because there were only 6 Non-SWANs with at-risk ratings on the PSG, no follow up RS ratings are reported.

**Table 5.** Means, standard deviations, difference scores and effect sizes for the SWAN sample during project year 4.

Subscale	Time 1		Time 2		Difference	Cohen's d	Category
	Mean	SD	Mean	SD		d	
SSIS Performance Screening Guides (n = 170)							
Reading	2.3	1.1	2.9	1.3	0.6*	.55	Medium
Math	2.5	1.0	2.8	1.2	0.3*	.40	Medium
Prosocial	3.1	1.1	3.3	1.1	0.2*	.25	Medium
Motivation	3.1	1.2	3.3	1.3	0.2	.17	Small
SSIS Rating Scales (n = 56)							
Social Skills	79	11	83	11	4*	0.38	Medium
Problem Behavior	122	19	122	16	−.8	−.04	None
Academic Competence**	74	10	76	9	2	.13	Small
Top 10 Scale	104	13	107	11	3	0.24	Medium

\*Differences significant at  $\alpha = .025$ , one-tailed. \*\*n = 35.

On the RSs, Social Skills and Academic Competence scores increased from Time 1 to Time 2 for SWANs, and Problem Behaviours remained relatively stable from Time 1 to Time 2. The increase in social skills was statistically significant, and there were medium effect sizes obtained for changes from Time 1 to Time 2 on the Social Skills Scale and on the Top 10 Social Skills, and a small effect size for changes from Time 1 to Time 2 in Academic Competence.

Significant differences in PSG Reading scores at Time 2 were observed between students with and without disabilities. Students with disabilities made greater gains in reading compared to students without disabilities ( $d = -.28$ ), and students without disabilities made greater gains in motivation to learn compared to students with disabilities ( $d = .21$ ). Small effect size differences, favouring the students with disabilities group, also were observed for math ( $d = -.16$ ).

To further examine the effects of the CIP programme, we investigated scores on the PSG and RS for students at each grade level (Prep, 1, 2, and 3) recognising that some students had been in the CIP programme in previous years (see Table 6). The score patterns highlighted the previous analyses with the full sample were again largely observed in each school year; however, the magnitude of the effect sizes from Time 1 to Time 2 were noticeable larger for students in the earlier two grades (Prep and Grade 1) than the latter two years (Grades 3 and 4). All grades except Grade 1 realised statistically significant medium effect sizes in Prosocial Behaviour.

To facilitate a comparison of the effect sizes representing the changes from Pre-CIP to Post-CIP for students at each grade level on the SSIS PSG and SSIS RS, we created Figures 1 and 2,

**Table 6.** SSIS PSG and RS data by school grade.

Subscale	T1 Mean	T1 SD	T2 Mean	T2 SD	Difference	Cohen's d	Category
Prep Year ( <i>n</i> = 59 for PSG; <i>n</i> = 15 for RS)							
Reading	2.3	.90	3.1	1.2	0.80*	0.89	Large
Math	2.4	.89	3.2	1.1	0.78*	0.87	Large
Prosocial	3.1	1.0	3.3	1.1	0.27*	0.26	Medium
Motivation	3.4	1.1	3.6	1.2	0.17	0.16	Small
Social Skills	78.1	9.7	79.7	10.8	1.6	0.17	Small
Problem Behavior	128.5	13.9	118.2	14.0	-10.3*	-0.77	Medium
Top 10 SS	100.6	11.4	101	9.4	0.40	0.04	Small
Grade 1 ( <i>n</i> = 68 for PSG; <i>n</i> = 16 for RS)							
Reading	2.7	1.4	3.2	1.3	0.52*	0.38	Medium
Math	2.7	1.2	3.1	1.3	0.37*	0.31	Medium
Prosocial	3.3	1.2	3.4	1.2	0.10	0.10	Small
Motivation	3.3	1.2	3.4	1.3	0.16	0.14	Small
Social Skills	70.1	12.7	77.6	10.3	7.4*	0.59	Medium
Prob Behav	121.2	18.0	122.8	18.2	1.6	0.09	Small
Top 10 SS	97.9	12.1	103.6	10.1	5.7	0.47	Medium
Grade 2 ( <i>n</i> = 70 for PSG; <i>n</i> = 18 for RS)							
Reading	2.9	1.2	3.4	1.3	0.54*	0.44	Medium
Math	2.8	1.2	2.8	1.1	0	0	No Change
Prosocial	3.4	1.2	3.6	1.1	0.23*	0.19	Small
Motivation	3.3	1.4	3.3	1.3	0.07	0.05	Small
Social Skills	86.3	11.1	89.6	10.3	3.3	0.30	Medium
Prob Behav	125.7	22.2	125.6	18.8	-0.1	0	No Change
Acad Comp	74.3	10.8	76.9	9.4	2.6	0.24	Medium
Top 10 SS	111.5	13.0	112.7	9.5	1.2	0.09	Small
Grade 3 ( <i>n</i> = 76 for PSG; <i>n</i> = 13 for RS)							
Reading	3.3	1.3	3.5	1.3	0.15*	0.11	Small
Math	3.3	1.2	3.4	1.3	0.17*	0.15	Small
Prosocial	3.7	1.1	3.9	1.0	0.28*	0.25	Medium
Motivation	3.7	1.2	4.0	1.2	0.30*	0.25	Medium
Social Skills	83.5	8.2	87.2	9.1	3.7	0.45	Medium
Prob Behavior	110.3	12.5	116.7	9.3	6.4	0.52	Medium
Acad Comp	75.3	9.6	75.6	9.8	0.3	0.03	Small
Top 10 SS	109.2	10.2	112.9	8.8	3.7	0.36	Medium

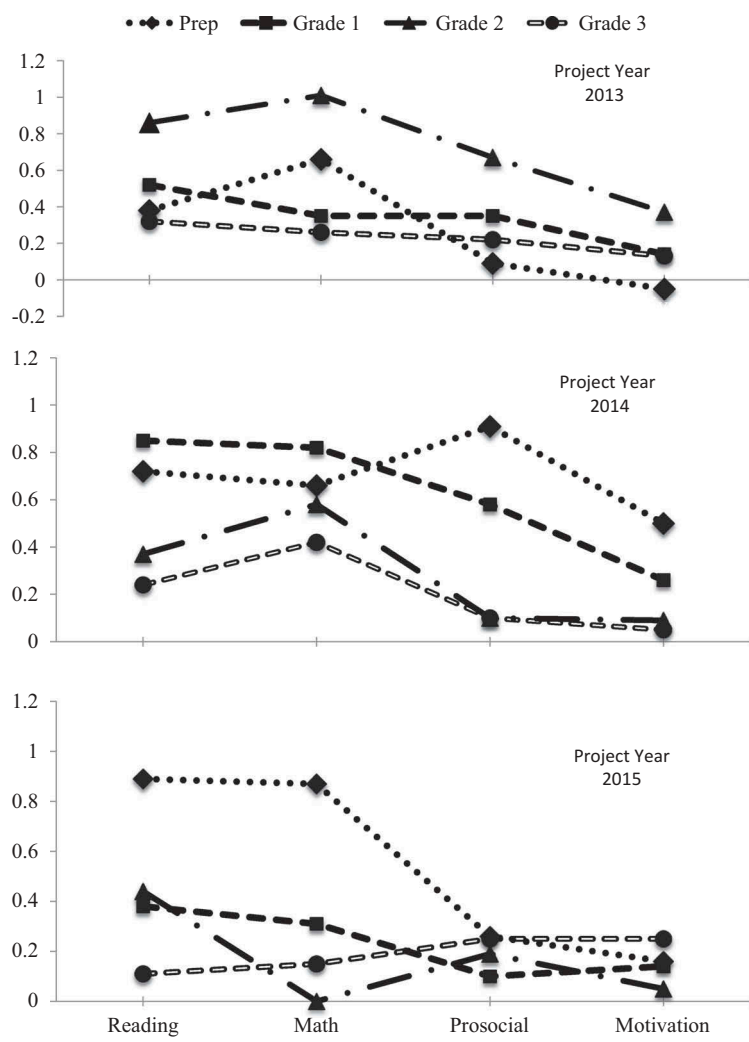
\*No Academic Competence Scale appears on the SSIS RS for the Prep and Grade 1 levels.

respectively. All students were rated on the PSG (Figure 1), while only students with low PSG Prosocial Skills ratings were also rated on the comprehensive SSIS Rating Scale (Figure 2).

Figure 1 illustrates the pre-post effect size changes for each grade (i.e. Prep (diamonds), Grade 1 (squares), Grade 2 (triangles), and Grade 3 (circles) that were realised each of the three project years (2013, top graph; 2014, middle; and 2015 bottom graphs, respectively) across reading, math, prosocial, and motivation scores. Focusing on Prosocial ratings, greater improvements in prosocial behaviours (as indicated by larger effect sizes) were observed during the first two Project years (top and middle graphs) while all grades in Project Year 2015 (bottom graph) had smaller to more moderate effect sizes, comparatively. In Project Year 2014 (middle graph), the students in the earlier grades made greater gains (as indicated by larger effect sizes) in their prosocial skills compared to students in higher grades.

In terms of RSs for at risk students (Figure 2), Social Skills increased with larger effect sizes for the students in the earlier grades compared to the students in the higher grades in Project Years 2 and 3, with similar trends in effect size for the Top 10 Social Skills. Note in each year, Problem Behaviours of students in either decreased (negative effect) or stayed the same (no effect).





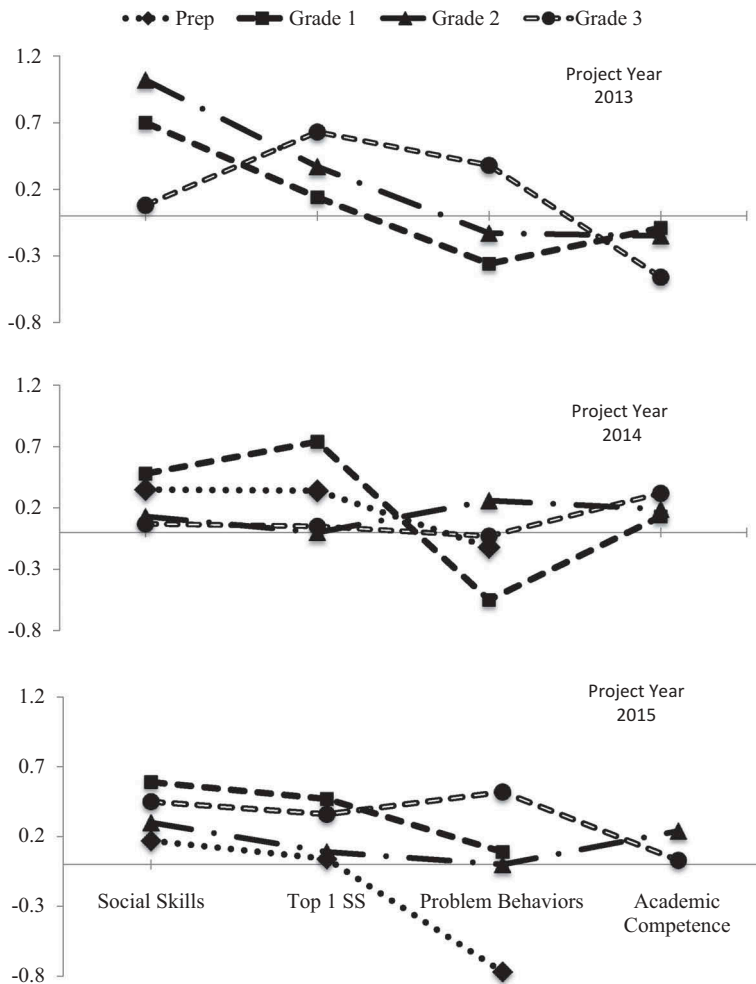
**Figure 1.** Pre-post effect size changes on the PSG for each grade in each of the three project years.

### Evidence that the SSIS CIP Influences Students' Academic Achievement (Evaluation Question 3)

The PSG data by itself provide effect size data for each of the three Years from 2013 to 2015. Effect sizes for Reading and Math have been reported. However, further analyses were undertaken to demonstrate the impact of Prosocial Skills on academic outcomes.

#### *Predicting End of Year Reading Performance for Project Year 4 (2014)*

For the total sample, PSG Prosocial and Reading ratings at the beginning of the Classwide Intervention Programme along with school attendance significantly predicted Reading performance at the end of the year on the PAT Reading Test. Specifically, the variables of



**Figure 2.** Pre-post effect size changes on the social skills rating scales for each grade in each of the three project years.

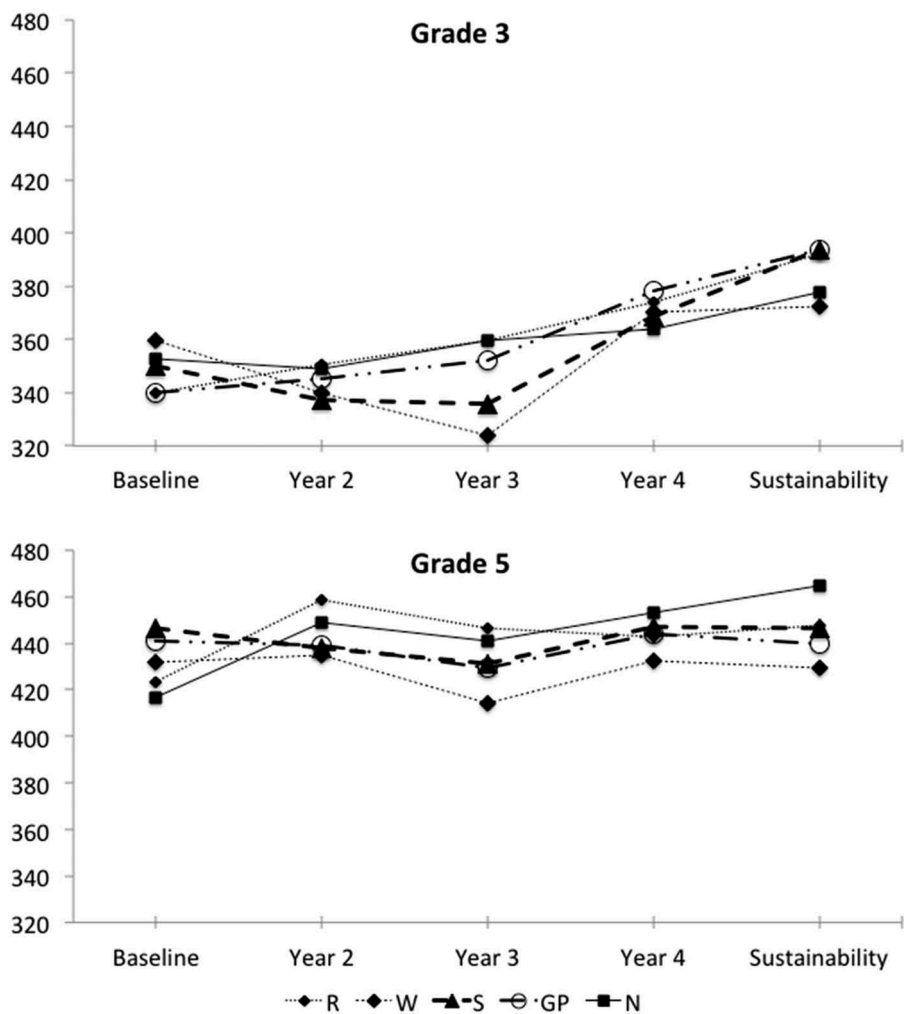
PAT-Reading Time 1 and Prosocial Skills as rated on the PSG, along with school attendance, accounted for a very large proportion ( $R^2 = .882$  or 88%) of the variance in end of year reading scores on the PAT-Reading test. In summary, teachers' ratings on the criterion-reference scoring rubric of the PSG and students' attendance at school did an excellent job of predicting end of year test scores produced by students on a standard reading test.

The Year 3 and Year 5 cohorts who received SSIS intervention in 2012–16 took the NAPLAN tests, which are conducted in Australia in May each year. Results for these two cohorts are displayed in Figure 3 for Reading (R), Writing (W), Spelling (S), Grammar and Punctuation (GP), and Numeracy (N). All trend lines leading to the 2016 Sustainability measure are positive except for Year 5 Writing.

**Problem Behaviour**

BSS behavioural data gathering, reported on their official Departmental OneSchool site, is summarised in Table 7. These data indicate decrease in behavioural incidents, annual incident count, numbers of students involved, and school disciplinary absences following SSIS intervention from 2012 onward.

The total number of major behaviour incidences reported dropped by 41% since 2013, a marked improvement. The number of school disciplinary absences also showed a large decline over the three years. Teachers and school executives considered the SSIS CIP intervention to be a major contributor to these positive results. Many individual case studies have also been documented that provide evidence of the impact of the social skills intervention programme. In addition to these data, teacher ratings on the RS for



**Figure 3.** NAPLAN results for grades 3 and 5 from baseline (2008) and project years 2–4, followed by a sustainability measure (2016).  
R = Reading, W = Writing, S = Spelling, GP = Grammar and Punctuation, N = Numeracy. Baseline = 2008, Year 2 = 2013, Year 3 = 2014, Year 4 = 2015, and Sustainability = 2016.

**Table 7.** OneSchool summary of behavioural incidents.

	2013 Project Year 2	2014 Project Year 3	2015 Project Year 4	2016 Sustainability Measure
No of Incidents in Term 1	–	339	222	115
Total No of Incidents per year	3525	2594	2270	1562
No of Students Involved	316	315	300	278
School Disciplinary Absences	241	202	149	26*

\*School Disciplinary Absences for 2016 is for Semester 1 only.

students at risk indicated many documented small and medium effect size shifts with regard to a reduction in problem behaviour (see [Figure 2](#) and [Table 6](#)).





### Evidence that the SSIS CIP Influenced Student Mental Health and Staff Wellbeing (Evaluation Question #4)

While pre-post measures of Problem Behavior indicate a reduction in problem behaviour, this result also suggests a likely improvement in mental health of students, particularly those with additional needs. Additional qualitative indicators can support the impact of the SSIS CIP on mental health.

The BSS School data Profile provided Engagement data (see [Table 8](#)) that included school attendance for each of the Project Year levels of interest across 2014, 2015, with 2016 providing a sustainability measure. School attendance provides an indication of student mental health and wellbeing. A positive green trend line for each year cohort indicates that after experiencing high attendance in 2012, attendance initially dropped in 2013, but increased for each of the Project Years from 2013 when the SSIS was utilised.

School Opinion Surveys are routinely carried out across all State Primary schools in Australia. Student agreement response to two questions was regarded as providing an indication of positive student mental health and wellbeing. These questions

**Table 8.** School attendance (%) for prep year, grade 1, grade 2 and grade 3 2013–2016.

	2014 Project Year 3	2015 Project Year 4	2016 Sustainability Measure	2013–2016 Project Years 2–4 Plus Trend line
Prep	85.5	87.9	91.6	
Grade 1	86.5	88.1	89.3	
Grade 2	88.6	90.1	91.0	
Grade 3	87.1	90.2	91.5	

**Table 9.** MySchool comparison of students at BSS with all Queensland state schools.

Year	'Like Being at My School'		'Feel Accepted at My School'	
	Bundamba State School	All State Schools	Bundamba State School	All State Schools
2015	96.2	91.8	96.2	85.1
2014	100	92.2	90.0	86.0
2013	90.9	92.4	91.5	85.3
2012	93.0	88.6	83	83.9
2011	92.5	80.1	N/A	N/A
2010	80.8	79.0	N/A	N/A
Means/SD	92.2% (5.9)	87.4% (5.7)	90.2% (4.7)	85.1% (.8)
Effect Sizes Between BSS vs All State Schools Within 2010–2015	.84		1.86	

Project Years reported in this paper reflect data between 2013 and 2015.

**Table 10.** Staff opinion on two staff wellbeing items of the School data profile.

Year	'Staff morale is positive at this school'		'I have access to quality professional development'	
	Bundamba State School	All State Schools	Bundamba State School	All State Schools
2015	97.1	85.2	97.2	90.8
2014	97.6	85.7	97.6	91.2
2013	88.7	85.4	85.5	89.4

and the levels of agreement across six years that included years of SSIS intervention are displayed and benchmarked against all State schools in [Table 9](#).

While State-wide data remained stable over the three Project Years, BSS student results indicated an effect size with increased liking to be at school and feeling more accepted at BSS when compared with earlier data. In addition, as reported in [Table 7](#), behavioural incidences and school disciplinary absences are also indicators of student mental health, and both declined in line with the introduction of the SSIS intervention. Staff wellbeing as measured by questions on staff morale and access to quality professional development indicated higher levels of agreement compared to State levels and across SSIS Project Years in [Table 10](#).

### Evidence that the SSIS CIP Influenced School Culture (Evaluation Question #5)

Staff also provided high levels of agreement to two central school culture questions, and these levels are compared to State levels and across SSIS Project Years in [Table 11](#).

When added to the results above regarding staff wellbeing and student results previously outlined across increased academic achievement, reduced behavioural incidents and school disciplinary absences, increased school attendance and engagement,

**Table 11.** Staff opinion on two school culture items of the statewide school data profile.

Year	'This is a good school'		'I would recommend this School to others'	
	Bundamba State School	All State Schools	Bundamba State School	All State Schools
2015	97.1	85.2	94.4	94.8
2014	97.6	85.7	95.0	94.8
2013	88.7	85.4	84.1	94.7

student reports of feeling accepted at school, and liking being at school, the combined indicators point to an improvement in school culture. While it is uncertain as to how much the SSIS CIP affected these changes, the school leadership, as part of an unpublished Departmental report, presented the case that the intervention was a critical factor in realising school improvement.

## Discussion

Decades of research have documented the importance of social skills in the interpersonal and academic lives of children; yet, the vast majority of schools do not actively and directly teach children social skills because of a perceived lack of instructional time, lack of agreement on what skills to teach, and an understanding of how to teach such skills effectively. Much of the social skills training that has occurred in schools has been with students identified with serious behaviour difficulties, and most of this training has occurred outside of the general education classroom (Elliott & Gresham, 2007). Some general educators, however, have persisted and integrated social skills training class-wide for all their students. The educators at BSS in Queensland, Australia are examples of this trend. This school serves mostly children at risk for educational difficulty and many identified with special needs. The SSIS CIP was selected by the school leaders and implemented with the leadership of staff from the school and used with students in years Prep through Year 3 for the past four years, three of which were examined in this article. Thus, a majority of the teachers and children in this study were exposed to the CIP for two or more years to direct classroom instruction and a school environment where the 10 social skills featured in this intervention programme have been modelled and valued. The current study provided a longitudinal and comprehensive evaluation of the impact of the SSIS CIP across the social skills, problem behaviours, and academic functioning. Each of these dimensions was part of our examination of evidence to address five questions.

## Key Findings

This programme evaluation study provided substantial evidence of improvement in social skills as measured by observation-based teacher reports of prosocial behaviour, and the Top 10 social skills as rated on the SSIS across each of the three years of the study. These findings were observed within each of the cohorts from Prep to Grade 3, SWAN and non-SWAN, and across the PSG and RS scoring platforms. Medium to small effects were found across these different samples, with relatively larger effects for the early grades.

This study also provided evidence for the effectiveness of the SSIS-CIP with a diverse sample of Australian children across three years of examination of social skills and academic performance data. The evidence supported a number of claims for the Year 4 2015 as an example of the richness of the longitudinal data available. For all Year 4 2015 students, statistically significant moderate effects of the social skills intervention were observed for prosocial behaviours, reading skills, and mathematics skills.

Effects of the intervention were even larger for students with disabilities than for students not identified with a disability. That is, the social skills intervention resulted in higher teacher ratings of students with special needs prosocial performance slightly, while nearly doubling the magnitude of their effect on reading and maths performance ratings.

Of interest, however, was the observation that the level of problem behaviours did not change for the students with special needs, except for the youngest students. An examination of students at each of the Year cohorts, indicated that the effects of the intervention for 2015 was generally largest for the Prep students, yet noticeable and meaningful across Grades 2 and 3 where many students had received social skills training the previous year.

While the research design precluded comparison with a control group that was not exposed to the SSIS CIP, the effect size results are very similar to those documented in the randomised controlled study with similar aged children in six US elementary schools (DiPerna, et al., 2015). Additionally, improvement effects in social skills were documented for both SWAN and non-SWAN student cohorts.

Increases in academic achievement of students over each of the three years was documented across the Reading and Math scores on the PSG, and the Academic Competence score within the RS. Additionally, these results accounted for a very substantial amount of variance in Grade 3 students' PAT Reading test scores. Moreover, NAPLAN test scores across each domain of Reading (R), Writing (W), Spelling (S), Grammar and Punctuation (GP), and Numeracy (N) steadily increased over the time that the SSIS CIP was operating within the school. This result is consistent with previous research (Kettler & Griffin, 2012) that demonstrated that social skills are associated with NAPLAN test scores and often function as academic enablers (DiPerna & Volpe, 2002).

In terms of behaviour over the time that the SSIS CIP was applied in the school, all of the general behaviour indicators routinely collected showed improvement. Specifically, indicators included school documentation of behaviour incidents and school disciplinary absences and RS data. These data would seem to correlate with improved student well-being and positive attitudes with being at school and engaged and feeling accepted. Staff wellbeing has become a recent focus for many educational administrations. In the last years of the SSIS CIP, indicators of school staff morale increased progressively and are now well above the State average.

When all of these effects of the SSIS CIP are taken together, the result has been a progressively positive improvement in school culture at BSS. Almost all staff indicated that BSS is a good school -far beyond the state average- and that it would be recommended to others. Moreover, the results from this study demonstrate that there is a cyclical interactive effect between social skills, academic functioning and achievement, reduced problem behaviours, engagement at school, student and staff wellbeing, and staff culture.

The catalyst for this change in staff culture, and all of the other effects experienced at BSS over the last several years, was the school leadership and a strong support team who effectively implemented new interventions and strategies. This systemic approach is supported by Rowling (2009), who indicated the need for school leadership, including distributed lateral leadership, and teacher efficacy in ensuring whole school change and improvement in social skills, behaviour, and achievement that then leads to improved mental health and wellbeing outcomes.

BSS leadership recently made the decision to extend the SSIS CIP into later grades (4–6) so that it is truly a school wide programme. The school has a strong base of experienced teachers in the application of the SSIS CIP with 27 teachers having at least one year of experience. While a few teachers have left BSS for a variety of reasons, there is a very positive teacher culture that supports the application of SSIS CIP at BSS and the mentoring and training of teachers new to



the SSIS CIP. Some of the support from teachers for the SSIS CIP is based on the strong evidence of a positive attitude towards the SSIS CIP – that it is feasible and useful.

## Limitations

The present study has provided an in depth, multi-year quantitative and qualitative evaluation of the SSIS CIP's effect on students and broader impact on teachers and one school's culture. Although informative, a number of limitations must be noted with the goal of encouraging improved efforts in future evaluations. First, we used a basic pre-test post-test evaluation design without a control or business-as-usual comparison group. In addition, the participating teachers all were aware of the purpose of the intervention and were likely motivated to see student improvement. As a result, the potential for rater bias existed; yet, the results of this study are consistent with a previous SSIS-CIP randomised controlled trial study conducted under rigorous conditions to minimise teacher bias (DiPerna et al., 2015, 2016). The BSS teachers were not aware of the DiPerna study; yet, their collective outcomes in many ways replicated the findings from the RCT study.

Second, the present study also was conducted in a school environment where students received a number of specialised services for their individualised needs, so it is not possible to claim that the SSIS-CIP can be credited solely for the documented changes in social and academic performances. It can, however, be stated that no similar social behaviour interventions were implemented during the period of this 3-year evaluation project, and nearly all teachers implemented the 10 intervention units for the recommended three times a week for 10–12 weeks each project year.

Third, and finally, although there is evidence that the social skills units were implemented on the recommended schedule, independent integrity checks were not conducted in every classroom to ensure each teacher was implementing the intervention as prescribed. Periodic classroom observations by both the local project leader and the senior developer of the CIP indicated very high intervention integrity with regard to the skill steps for a subset of the 10 social skills. Because some of the skill units had been customised (e.g. to better fit the language level of students, to allow the use of PowerPoint slides for presenting key elements of each lesson, and to highlight pictures of their own students), a more comprehensive intervention implementation integrity assessment is recommended in the future.

## Implications for Future Research and Practice

The results of the SSIS CIP programme as implemented at BSS were promising and stimulated a number of issues for further investigation. The issues include a further comprehensive examination of the subset of the lowest functioning students, a follow-up study with teachers and students a year or two after completing an intervention year to determine maintenance and the extent of generalisation of the skills taught, and a study of the consequences of the CIP for future social skills instructional practices at the school. Additionally, further research is needed in schools adopting SEL interventions as a major strategy to address school mental health, and also the overall impact of SEL on student and staff wellbeing and school climate.

## Conclusions

The results from this evaluation study of three SSIS-CIP Project Years at one school in Australia converge with rigorous research that has shown that teachers can use the CIP efficiently and effectively to improve children's social skills, which in turn, facilitate improvements in academic motivation and performance. These findings were especially evident with children in the early years – Prep and Grade 1 – and those identified as at-risk or with special needs. Additionally, students' overall wellbeing and positive mental health outcomes improved and seemingly compounded over the course of multiple years of programme implementation. In conclusion, this evaluation has shown that virtually all children can learn and improve their social skills with a relatively small time investment during the early years of school. More, of course, can and should be done to continue the development of key academic enablers, but the evidence is clear that there are dividends for teachers to teach and assess 10 important social skills using the straight-forward instructional approach advanced by the SSIS-CIP.

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