



Sparklers

Initial research into
the impact of Sparklers
for the Mental Health Foundation

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Research

Social Change
& Innovation

Initial research into the impact of Sparklers for the Mental Health Foundation
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Executive summary

Sparklers is a bank of wellbeing activities for students in Years 1–8. The web platform was developed in 2016 to promote the wellbeing of children and young people in schools across Ōtautahi/Christchurch.

Piloting of the Sparklers' resource was undertaken in over 50 Canterbury-based schools in 2016 and the programme was formally launched in 2017. The purpose of this evaluation is to understand the impact for students. The research was funded by the Mental Health Foundation through the Pink Shirt Day campaign, therefore there was a focus on investigating the potential of Sparklers to reduce bullying in schools.

An exploratory sequential mixed method research design was selected to broadly explore and understand how Sparklers is implemented in schools and what impact this is having for students. Sparklers is a resource bank of activities and teachers have had the flexibility to decide what to implement and how often. While the variability of implementation attracts teachers to the resource, it creates challenges for research and evaluation, as it is difficult to determine how the dosage influences the impact for students.

Two schools opted to work with the evaluation team to explore the impact. The first school implemented Sparklers consistently for eight-weeks. During this time shifts were evident in the use of prosocial strategies used to regulate student emotions and resolve differences. An eight-week period was insufficient to see significant change,

however teachers reported small changes in focus group students and a whole school shift in relationships. The second school has implemented Sparklers since the launch in 2017. The teachers and school leadership believe Sparklers has been an important part of a whole school positive approach to support students to learn social and emotional skills. Along with other support interventions high level behaviours have reduced over time, and students were more able to describe and manage emotions.

Teachers from these schools indicated there is an opportunity to be more explicit about what students might learn through participating in the activities, rather than just running the activities without explanation, and that being consistent is key to being effective.

The findings from the qualitative case studies were used to develop an online survey. One hundred and thirty-seven teachers, school leaders and school support staff completed the online survey. Data confirmed the findings in schools and was consistently positive. Over 90 percent of the respondents consistently agreed that Sparklers has made a positive difference to students in their classroom. Implementing Sparklers in classrooms has had a positive impact for students' social and emotional learning, including raising self-awareness, self-management, social awareness, and relationship skills. Teachers believe Sparklers is appropriate for Māori students and students with diverse needs. There is an opportunity to explore how activities from a te ao Māori perspective could be implemented as part of Sparklers, particularly for kura and wharekura.

The overall theory driving the implementation of Sparklers in schools appears to be that Sparklers can be used easily, it is complementary to other programmes and supports social skill learning and emotional regulation in a fun way that students can relate to. The implementation of Sparklers in schools is extremely variable, while it is recommended to be little and often,

survey data indicates the frequency of implementation appears to be too infrequent in many classrooms to achieve a sustained gain for students. The combination of evidence indicates that Sparklers supports social and emotional learning, reduces antisocial behaviour and increases social support and connectedness. Thus, indicating that implementing Sparklers regularly has the potential to reduce bullying in schools.

90%

of the respondents consistently agreed that Sparklers has made a positive difference to students



Summary of findings

Sparklers is a bank of wellbeing activities for students in Years 1-8 which is aligned with the New Zealand Curriculum.

The activities can be organised by the key competencies: thinking; relating to others; using language, symbols, and texts; managing self; and participating and contributing. It was developed in response to requests from the education sector for tools to help them support and promote the wellbeing of children and young people across Ōtautahi/Christchurch. Following receipt of funding from the Christchurch Earthquake Appeal Trust (CEAT) the Whānau Wellbeing Collaboration was established and the funding managed by the Methodist Mission. The collaboration was made up of a number of agencies including Community and Public Health (A division of the Canterbury District Health Board which also houses the All Right? campaign). Initial funding for Sparklers came from this fund and the collaboration was involved in its development. Sparklers was formally launched on 20 June 2017.

Features of the Sparklers' resource

Sparklers' activities can be used as starter activities or integrated into, or used to form, the basis of full classroom sessions. Sparklers' activities range from 10-minutes to an hour in length and cover a variety of different types of activities grouped together under specific headings: showing kindness; gratitude and giving; being ourselves; feeling good; balancing energy; managing emotions; using our senses; noticing our world; and, warm-up activities. The activities can be filtered using these headings, by key

competency, and by whether the activity is a game or craft-based activity and/or has a worksheet provided. In addition, a guide for teachers provides an overview of the resource together with further reading material. Several parenting guides offer information on ways in which parents can support child wellbeing at home.

Specific resources for Māori and Pacific families were also produced and supported by this fund including the Whānau Effect seasonal activities and Pacifically Speaking activity cards and conversation starters for families. Some of the activities from each of these resources have been integrated into Sparklers, providing a connection between the three resources.

Previous evaluations of Sparklers

Piloting of the Sparklers' resource was undertaken in over 50 Canterbury-based schools in 2016 and the programme was formally launched on 20 June 2017 at Kaiapoi Borough Primary School. An evaluation was then undertaken to assist with ongoing programme development (Canterbury District Health Board, 2018).

The evaluation included:

- **describing teacher perspectives regarding the utility of the Sparklers' website**
- **capturing teacher perceptions of the impact of the Sparklers' activities on student behaviour**
- **describing student experiences of Sparklers and capturing examples of applied learning as expressed by the students themselves**
- **describing the perspectives of key stakeholders as to the utility of the Sparklers' resource and their perceptions regarding the impact of Sparklers in school settings**
- **identifying specific recommendations regarding the future development of the Sparklers' resource**

Data included individual and focus group interviews with teachers and school leaders at five schools that were using the Sparklers' resource. An on-line teacher survey was also sent to these schools. Seven teachers (including two designated Special Education Needs Co-ordinators) from two schools responded to the survey. Focus groups with students were undertaken in three schools. In addition, in a fourth school an observation was undertaken of a junior class participating in Sparklers' activities facilitated by the classroom teacher during an afternoon session. Stakeholder participation included a focus group interview with members of the School Based Mental Health Team employed by the Canterbury District Health Board (CDHB). These team members had previously held conversations with teachers about the possibility of bringing together resources and activities to support the wellbeing of children in the area. The School Based Mental Health Team had also been responsible for sharing the Sparklers' website with schools and had modelled Sparklers for groups of teachers and teacher aides, as well as presenting the resource at parent/

caregiver workshops. A focus group was also held with Resource Teachers of Learning and Behaviour (RTLBs) who had been involved in piloting the Sparklers' resource. Finally, five Health Promoting Schools (HPS) facilitators (based at Community and Public Health, CDHB) who worked at Canterbury schools, responded to an online survey to determine how they "shared the Sparklers' resource with teachers, how it had been received, and how it was being used in schools they worked with." (Canterbury District Health Board, 2018. p. 19).

Key findings from the 2018 evaluation indicated teachers enjoyed using the Sparklers' activities and found them very helpful in developing positive classroom cultures. Teachers reported the website was easy to use, particularly for identifying and selecting Sparklers' activities they believed were best suited to their situation and needs of their children. Participating teachers noted their students had responded positively to the Sparklers' activities and the activities were beneficial for developing social and emotional literacies of their students. Students were very positive about their experience of Sparklers' activities and were able to identify "personal and collective (class) benefits of taking part in the activities" (p. 21). In particular students viewed the activities as enabling them to calm themselves, show kindness to others, give and receive compliments, and identify and reflect on personal strengths.

Resource Teachers of Learning and Behaviour (RTLB's) were also very positive about Sparklers and its underlying 'positive psychology focus'. This was an important feature of the resource that was being shared with teachers, teacher aides and parents/caregivers to support children's wellbeing. Interviews with the School Based Mental Health team revealed there had been wide variation in how schools had used the resource. "In some schools one teacher was using the resource, in others several were committed to using it, and in a few schools, there had been a broader, school-wide adoption of Sparklers" (Canterbury District Health Board, 2018, p. 16). Some resources were not seen to be age appropriate for

older students and teachers also wanted the programme to be more adapted to the needs of teenagers. Although the resource was viewed as culturally appropriate by teachers, focus group participants suggested incorporating more Māori and Pasifika imagery, language, and activities in the Sparklers' resources.

The impact of teaching prosocial and wellbeing skills to children in schools

There is ample research evidence that highlights the importance of teaching prosocial and wellbeing skills to children in schools (Harvey, Evans, Hill, Henricksen & Bimler, 2016; McLaughlin, Aspden & Clarke, 2017; Reitz, Mertens, van Londen & Dekovic, 2019). Understanding and managing emotions are important life skills and related to an individual's emotional intelligence (Mayer, Caruso & Salovey, 1999). It has been argued that students' experiences in their schools significantly contribute to their lifelong development (Tian, Chu & Huebner, 2016). Positive psychology approaches in schools have fostered positive emotions, character strengths and resilience in children (Waters, 2011). Character strengths have been defined as "pre-existing qualities" occurring "naturally, are intrinsically motivating to use and energising" (Brdar & Kashdan, 2010, p. 151). They include such things as love, curiosity, hope and zest and are associated with life satisfaction and resilience.

Prosocial behaviour has been defined as a concern for the welfare of others (Tian, Chu & Huebner, 2016). Research has demonstrated that children with prosocial skills are more in tune with interpersonal relationships in classrooms and giving consideration to other's needs (Tian, Chu & Huebner, 2016). Children's prosocial abilities are associated with emotional and social competence, and include the ability to develop positive relationships, identify and validate own and other's feelings and enact self-regulation strategies (Harvey et al., 2016; Waters, 2011). Emotional regulation is the ability of young

children to calm down and self-regulate their emotions, particularly when they feel angry, upset or over excited (McLaughlin, Aspden & Clarke, 2017). Effective self-regulation, particularly being able to calm themselves, can positively influence the development of self-esteem in young children. Teaching children self-regulation skills and prosocial problem-solving skills is essential for preventing peer conflict (McLaughlin, Aspden & Clarke, 2017). Studies have highlighted that the development of empathy enables prosocial behaviour in children, which is important for rejecting anti-social behaviour such as bullying (Raskauskas, Gregory, Harvey, Rifshana & Evans, 2010). Evidence suggests teaching prosocial skills, as part of a programme of developing positive and safe classroom climates and enabling children to feel more connected to their teachers and school, are more effective at addressing bullying in schools than standard behaviour management programmes (Raskauskas et al., 2010).

Effectiveness of improving prosocial skills and reduction of bullying behaviour

Some school-based interventions aimed at improving prosocial skills and wellbeing for primary aged children have reported a decline in children's bullying behaviours. For example, Reitz, Mertens, van Londen and Dekovic (2019) conducted a programme evaluation on the school-based programme Rock & Water (R&W) to determine the impact of the programme on children's perceptions of social safety and in particular their engagement in bullying instances (either as a victim or perpetrator). Rock and Water is a school-based intervention developed in the Netherlands that aims to enhance the psychosocial wellbeing of children by improving their feelings of social safety. The emphasis of R&W is on developing resilience and children's social and communication skills. Two important ideas fundamental to the R&W programme include self-regulation and self-esteem. The programme intends to

make children more aware of their own body (body awareness) and their accompanying emotions (emotional awareness) and how to regulate these effectively. It's argued that children who learn such awareness are better able to control their emotions and improve their decision-making in stressful situations.

A total of 1203 primary school children aged between 7-14-years participated in the study. Seventeen schools were recruited through the network of the Gadaku Institute (the Rock and Water Institute in the Netherlands). Schools were randomly assigned to the intervention group (11 schools) or the control group (six schools). Children filled out questionnaires before and after the intervention. When the pre and post-measurements were compared separately for the intervention group and control group, children in the intervention group reported a decline in two forms of bullying; being physically bullied and bullying 'other'. They also reported higher levels of self-regulation, social acceptance and global self-esteem as well as a decline in depressive feelings. Findings indicated children who had participated in R&W reported stronger improvements than the children in the control group. The researchers noted the importance of focussing on enhancing children's prosocial skills, particularly self-regulation and self-esteem in preventing bullying, because these are seen to increase feelings of social safety and wellbeing within schools (Reitz, Mertens, van Londen & Dekovic, 2019).

Jones & Bouffard (2012) claim Social and Emotional Learning is the foundation of students' wellbeing and success in school and life. The state researchers, educators, and policy makers need to collectively advance the agenda of bringing Social and Emotional Learning to all children by incorporating it consistently and effectively into school curricula.

The teacher's role in promoting wellbeing and prosocial skills

A number of studies have emphasised that for school-based interventions to be effective teachers must critically reflect on current classroom practices and improve their own social and emotional competence (Harvey et al., 2016; Waters, 2011). For example, the ability of teachers to consistently model emotional competency is a significant variable as to whether wellbeing and prosocial intervention programmes are effective in schools (Harvey et al., 2016). Whole-school approaches that enable teachers to work together to inquire into and improve their classroom climates and develop school-wide programmes are more effective than one-off workshops or short-lived interventions (Waters, 2011). In addition, research has highlighted the importance and impact of responding positively to children's cultural diversity (Brdar & Kashdan, 2010) and this is particularly important in Aotearoa where Māori learners have typically been underserved by schools (Ministry of Education, 2011). Culturally responsive whole school programmes are essential for promoting prosocial behaviour, conflict resolution and restorative approaches to challenging behaviour amongst diverse groups of children (Savage, Macfarlane, Macfarlane, Fickel & Te Hēmi, 2012).

A strengths-based, culturally responsive approach developed through whole school-community engagement enables children, their teachers and whānau/families to develop and sustain positive social and emotional behaviours and skills important for wellbeing

(Harvey et al., 2016, Savage et al., 2012).



This research was guided by five research questions:

1. What theories of change drive the implementation of Sparklers within classrooms and schools?
2. What is the impact of Sparklers?
3. What are the intended and unintended consequences for schools implementing Sparklers?
4. What could be done to improve the resources and implementation?
5. In what ways does Sparklers have the potential to reduce bullying in schools?

Research approach

In this research approach we are seeking to describe and explain the effect and impact of the Sparklers programme in schools.

Consequently, an exploratory sequential mixed method research (MMR) design was selected in order to broadly explore and understand how Sparklers is implemented in schools and what impact this is having for students. As the research was funded by the Mental Health Foundation through the Pink Shirt Day campaign, there was a focus on investigating the potential of Sparklers to reduce bullying in schools.

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The research was carried out over a five-month period between August and November 2019 in two case study schools. The online survey was carried out over a three-week period in November 2019. The ethical procedures followed by the researchers are explained in Appendix 1.

Challenges and limitations

Sparklers is an online resource rather than a programme and does not have a planned approach to implementation or theory of change; this makes it challenging to formally evaluate. The original intention of the architects of Sparklers was to create a flexible bank of resources rather than a programme. The architects were aware teachers were implementing the resource in a post-quake environment. Teachers had reported they did not want the added stress of professional learning training programmes and rigid implementation guides. A resource approach enabled teachers to pick and choose what they needed and decide how and when to use Sparklers. This has enabled flexibility of implementation but creates some challenges for evaluation as the implementation approach is variable across each classroom and school.

Generally, social and emotional learning programmes and whole school behaviour programmes have a clearly articulated implementation approach. This enables evaluators to assess the extent to which the programme has been implemented with integrity. The implementation of Sparklers' activities has been left to schools and teachers to determine. Therefore, this evaluation is designed to understand how teachers and schools decided to implement Sparklers and the impact they believe this has had. While the design of the implementation creates challenges for evaluation, the flexibility adds another dimension to explore in this research.



Data and context

The purpose of the next section is to describe each of the contexts for study.

Schools are complex environments to conduct evaluation in as there are always several different interventions implemented within school settings. The context in which Sparklers is being implemented is likely to have an impact on the outcomes and impact, particularly if school-wide policies are conflicting or complementary to the intention of Sparklers. For this reason, we have taken time to describe the context of each school, the approach taken to relationships and behaviour management and student wellbeing, and the way in which Sparklers has been implemented by the school. One school has implemented Sparklers regularly in half of the school for a period of eight-weeks. The other has implemented Sparklers for over two-years, the way in which Sparklers has been used in the classroom, while supported by school leadership, has been left to teachers to decide.

The intention is not to compare case studies, but rather seek to understand the impact of Sparklers in the short-term and over a longer period. The data gathered in each school was dependant on what was available and what was practical and achievable within the research period.

Short-term implementation

Waimairi Primary School

Context

Waimairi Primary School is an urban primary catering for 422 students (as at July 1, 2019) from Year 0-6. It has an increasingly diverse student population (302 European/Pākehā, 59 Māori, 39 Asian, 13 other, and nine Pacific). The school and its surrounding community was significantly impacted by 2010-2011 earthquake events, then by the March 15 2019 shootings in Christchurch. Over an extended period of time, teachers and school leaders have noted the impact of these traumatic events on their staff, students and whānau.

School leadership recognises that wellbeing is a complex issue and have sought to develop nuanced, bespoke approaches to supporting the wellbeing of their staff, students and whānau over the long-term. Current initiatives have evolved from a long-standing focus on relationships, emanating from efforts to unpack and implement learnings from the 'The Edu-cultural Wheel' (Macfarlane, 2004). It became apparent the school environment must support staff to attend to their own wellbeing and the quality of their relationships as a prerequisite for successful student wellbeing initiatives. This led to school leadership investigating the benefits of positive psychology.

Waimairi school was the recipient of Teacher Led Innovation Funding from the Ministry of Education. Their project sought to investigate the effect of raising psychological capital (PsyCap) for staff, students and whānau. While the intention was to cover all three cohorts,

implementation has been complex and time consuming. Consequently, Psycap interventions were prototyped with a group of staff. Sparklers was selected as an approach that could be adopted to raise student psychological capital namely hope, efficacy, resilience and optimism.

Approach

As part of the Teacher Led Innovation Fund inquiry, teachers from five classes established a guideline for implementing Sparklers. Participating classes implemented a Sparklers' activity at least four times a week. One new activity was taught each week and two of the activities were repeated.

Data gathered

There was an eight-week intervention period enabling the collection of Time one (pre-intervention) and Time two (post-intervention) data. Five classrooms implemented Sparklers; five classrooms did not implement Sparklers which enabled control data to be collected. The following section briefly describes the data collected and the findings.

Whole school survey

Waimairi school runs a 'whole school relationships survey' at least twice a year to determine how supportive the school climate is for students. All students (n=422) are asked to identify students who they consider to be a source of support – and those students who they consider may have harmed them. Students who

are nominated five times or more are counted, and identified as either positive or negative relationship supports, this data is highly confidential and used to ensure students who require support with relationships receive support. The survey was completed in Term 2, 2019 and in Term 4, 2019. The figure on page 12 demonstrates a 38% increase in positive nominations from 65 to 90 and a 71% decrease in negative nominations from 14 to four from Term 2 to Term 4.

Analysis of student incidences

Student incidents were analysed across a four-week period in August 2018 and November 2019. The figure on page 12 demonstrates an overall decrease in whole school incidences from August 2018 to November 2019. There is a noted reduction in 'aggression, verbal/teasing and interfering with others', and an increase in 'students in out of bounds areas and damaging equipment'. This could be attributed to the changes in the physical school site, in November 2019 the school was a building site and the number of out of bounds areas increased significantly to ensure student safety.

Student survey activity

A student strategy survey was developed with the teachers to understand the use of prosocial strategies the students used to regulate their own emotional responses and to solve issues with friends. The whole school was surveyed (422 students), before the Sparklers' intervention (Time one) and eight-weeks into implementation (Time two). Data was sorted into Sparklers' learning spaces (those who implemented the intervention n=4) and those who did not, control learning spaces (n=4). The data was sorted into four categories:

1. A negative response – ranged from hitting, crying, banging my head, running away.
2. A positive response – walking away, finding another friend.
3. Adult – going to find an adult for support or resolution.
4. Strategy – using a known strategy (e.g. WITS, minute breathing, tummy breathing, cooperative or restorative strategy).

Figure 3 indicates the shift in strategies used to emotionally regulate student response, before and after intervention in the Sparklers and control classrooms. The data indicates students who identified a strategy to use in the Sparklers' classrooms increased by 32% after participating in Sparklers. Also demonstrated in Figure 4 is a similar shift in strategy use when resolving differences with friends.

Observations of focus students and teacher journaling

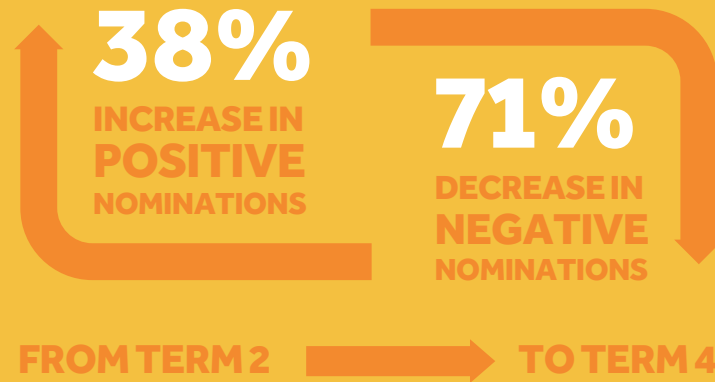
While all students in participating classes completed the activities, teachers selected students in their classroom who they believed would benefit from Sparklers. Generally, students were selected as they demonstrated anxious behaviours, a need to learn empathy towards others and/or were aggressive to others, or consistently reported a low mood. Observing target student behaviour is a strategy teachers often use in the teacher inquiry process to determine if an intervention is having the intended impact.

Teacher observations indicated there were positive changes for some of the focus students. The table on page 13 outlines an analysis of the key positive changes noted in the observation data and an example of the observations recorded.

Waimairi School

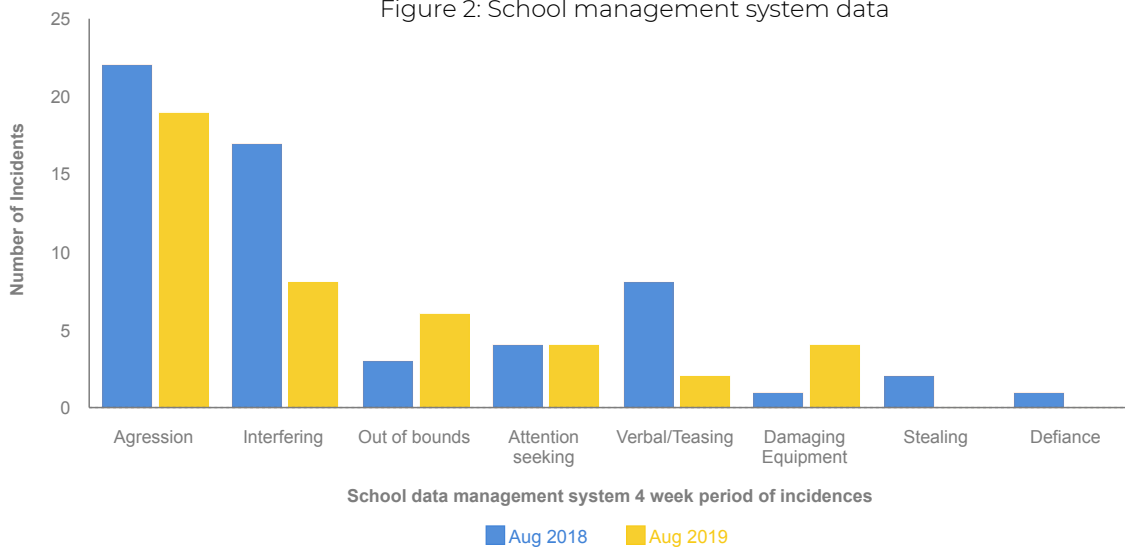
WHOLE SCHOOL RELATIONSHIPS SURVEY

Figure 1: Whole school relationships survey



SCHOOL MANAGEMENT SYSTEM DATA

Figure 2: School management system data



STUDENT RESPONSE

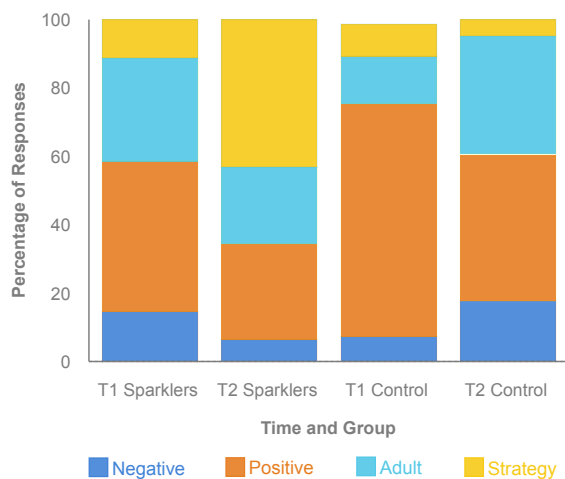


Figure 3: Student emotional regulation response

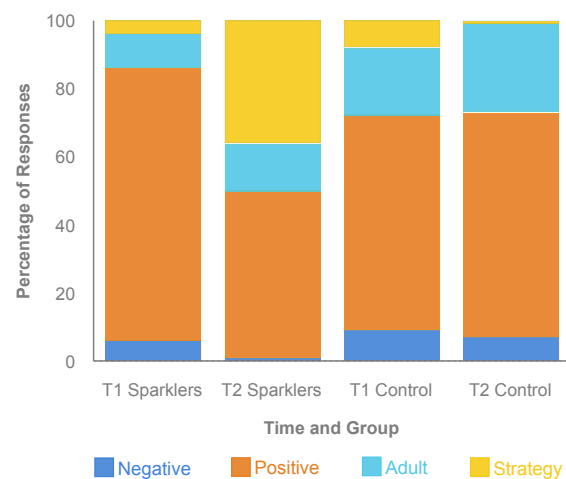


Figure 4: Student resolving difficult situation response

Table 1: Teacher observation of positive changes in focus students

Positive changes	Observation of focus students
<p>Students used the strategies learnt through Sparklers in the playground</p>	<p>“Tom was involved in a situation that involved another boy in the playground, he said he used tummy breathing when he felt angry.”</p>
<p>Teachers were more aware of students’ needs</p>	<p>“The ability to read other emotions for Ben and Craig has been an important learning – and even the fact that this is what you should do has been a new learning for them.”</p> <p>“We stuck with the faces game and frozen emotions as this is a real need for her, she is unable to read other’s emotions.”</p>
<p>Students increased participation time in Sparklers’ activities</p>	<p>“Tom’s engagement time has definitely increased. John’s body language has completely changed, when it’s Sparklers’ activity time, he faces the teachers, he’s not looking down, but looking up and he participates in the activity.”</p>
<p>Teachers noted positive changes in student demeanour and attitude</p>	<p>“Both Karen (other teacher) and I have noticed a difference in his classroom demeanour.</p> <p>“There seems to be a real shift in Hēmi’s attitude and how he is responding to classmates, he seems happier, more engaged with getting work done and there has been a definite drop in the amount of complaints about him and visits he has had to the Principal. We’re really proud of where he is at the moment.”</p>

An analysis of the observations indicated most of the focus students increased their engagement and participation in Sparklers’ activities over the eight-week period. Not all teachers observed positive behaviour changes in all students. No negative responses to activities by focus children were observed during the Sparklers’ activities.

Teacher and student interviews

All the teachers in classrooms who implemented Sparklers were interviewed

(n=5). Three students who were identified by the teachers as students who could potentially benefit from Sparklers were interviewed (N=15). All teachers reported positively about implementing Sparklers over the eight-week period. All the teachers commented they will continue to use Sparklers and saw the benefits in starting a new school year with Sparklers. The students responded positively to the Sparklers’ activities. Students spoke about their experiences through being part of the activities and the skills they had learnt. Students who were interviewed responded positively about their participation in the activities.



“Sparklers has really worked for me.”
(Student interview)

Summary statement

Even with a relatively short implementation period of eight-weeks there was an impact for students. Shifts were evident in the use of prosocial strategies the students used to regulate their own emotions and resolve difficulties with other students. After an eight-week period teachers observed and reported small changes in focus group students. However, teachers agreed a longer implementation period would be needed to see a substantial change in behaviour. The students reported positively about the activities, some students talked about using strategies they had learnt at school or at home to regulate emotions. Teacher interviews indicated all the teachers would continue with Sparklers post the eight-week inquiry period.

Long-term implementation

Kaiapoi Borough School

Context

Kaiapoi Borough School was established in 1873. It is a full primary school, providing learning opportunities for students in Year 0-8. The school is located in close proximity to the Kaiapoi River and, like Kaiapoi and its surrounding areas, was severely affected by the impact of the Canterbury earthquakes of 2010 and 2011. Responding effectively to the impact of the earthquakes on whānau, students, staff and the school environment has been a core activity of the school over the last 10 years. The manner in which this activity has been carried out is conveyed by the school's mission statement:

A safe and inclusive learning environment, partnering with whānau to develop lifelong learners.

He wāhi ako haumarū, e mahitahi ana ki ngā whānau kia puāwai ai ngā ākonga.

And through the school's core values:

Innovation - Huatutūtanga me

Auahatanga Thinking critically, creatively, finding solutions

Community - Whakawhanaungatanga

Sharing with, and appreciating others

Integrity - Pono Being honest, responsible and acting ethically

Respect - Manaakitanga Ourselves, others, our environment and human rights

The school has an increasingly diverse student population and has experienced significant transience as houses have been demolished or repaired and housing

areas earthquake zoned. The school itself has undergone a significant building programme and the infrastructure (roading, footpaths, drains, services) around the school have been repaired or replaced over several years.

In response to the traumatic impact of the quakes and the aftereffects, the school has focussed on improving relationships and supporting positive behaviour. They have moved to a restorative approach to managing relationships evidenced by the implementation of several strategies to support students, whānau and teachers:

- Kaiapoi Borough School was a pilot school for Huakina Mai. A social cultural approach to positive behaviour piloted in partnership with Ngāi Tahu, The University of Canterbury and the Ministry of Education.
- A whole school strategy drives activity focused on quality teaching and learning, relationships and connection to whānau and community.
- Circle Time daily in every class.
- Restorative Practice professional learning support provided annually for staff through a long-term partnership with Margaret Thorsborne.
- Monitoring and analysis of behaviour data.
- Individual goals and plans for identified students.
- Close relationships with the Ministry of Education (RTL), Mana Ake, The Public Health Nurse and community

agencies (Methodist Mission, Presbyterian Support, Holiday Camps).

- Art therapy.
- Significant efforts to ensure equitable opportunities including the development of a cultural narrative by manawhenua Ngāi Tūāhuriri and efforts to ensure biculturalism and hauora (wellbeing) are woven through all teaching and learning (KBS Strategic Plan, 2020).
- Mindfulness and M3 (Māori Mindfulness for children).

The idea for Sparklers originated from Kaiapoi Borough School as the Mental Health Worker in Schools, Michelle Cole, realised many teachers did not have the strategies to support children who had experienced trauma to cope with their challenges. She developed resources and strategies so teachers could support students, in their classrooms and across the school, who appeared to be suffering emotional disturbance due to several factors, including the earthquakes. This work was the catalyst for Sparklers.

Approach

Rather than being implemented as a stand-alone response to incidents or issues that arise, Sparklers is utilised as a resource to complement a suite of approaches aimed at achieving the school's mission, values and strategic goals. As such it is an integral part of the school's theory of improvement and is consistent with the aspirations the school has for its students, staff and school community.

Consequently, the selection of Sparklers' activities at the classroom level aligns with school-wide priorities. At any given time, the whole school focusses on one of the school values e.g. integrity. School leaders and staff ensure there

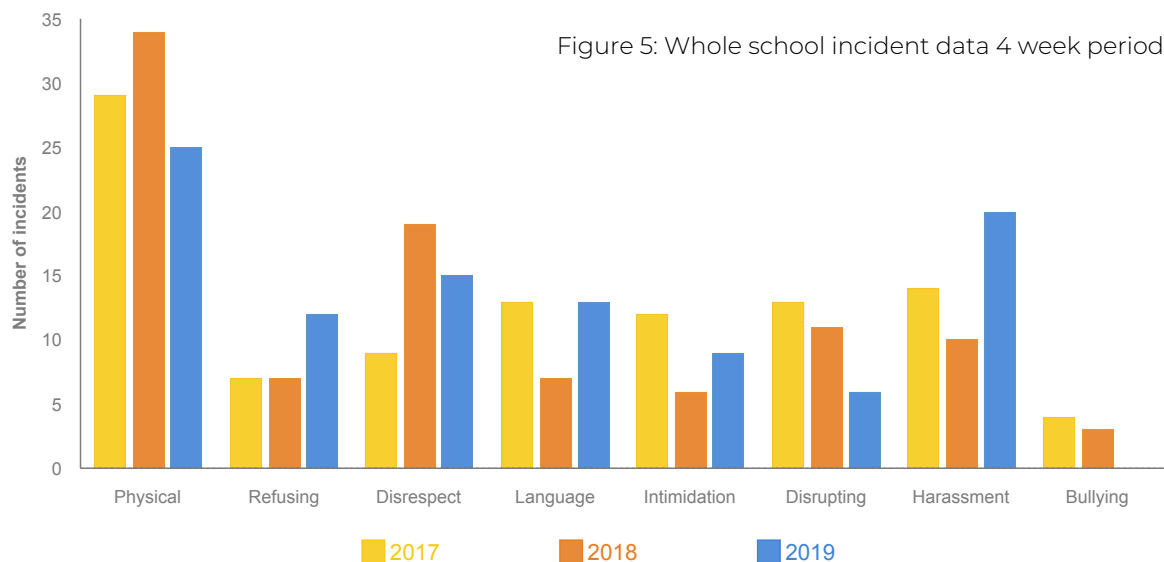
is alignment between the focus value; the taught curriculum (e.g. inquiry, EOTC etc); wellbeing and relationship learning (e.g. circle time, restorative chats); and whole school messaging (e.g. newsletter, assemblies). Sparklers' activities that support staff to teach the selected value are identified by the Deputy Principal and publicised to staff in a weekly email. Sparklers' activities are optional, and teachers are able to choose whether or not to use the activities in the classroom. The Deputy Principal noted the activities are more widely utilised when they are experienced by staff in a staff meeting:

"We were looking at community by cooperating with others. If you go to the Sparklers' website there are heaps and heaps of activities around cooperating with others, there are all these activities that the teacher can just flick to. We did a couple of them in staff meetings that week and one of them was the hoop, 'loop the loop', where you've got stay in a circle and you have the hoop and you've got to cooperate to get the hoop right round. Well, we did that in the staff meeting and then you saw everyone around the school - there were hoops in every classroom." (School leader)

Data gathered

Analysis of student incidents

Data was analysed from the student management system from the same four-week period (week 6–10 Term 2) across three years, 2017, 2018 and 2019. The data provides a snapshot over a period but does not account for what was occurring during these times and changes in teacher reporting rates and so on. Figure 5 demonstrates the percentage of the total data over the four-week period within eight identified areas: physical aggression, refusing instructions, disrupting others, inappropriate language, intimidating behaviour, disrupting other students learning, harassment and bullying behaviour.



Drawing conclusions directly from behaviour data can be tenuous. During the senior leadership interviews the school leaders discussed the data with the researcher. The senior leader stated physical incidents have decreased over time and issues with behaviour are less likely to be aggressive or bullying. The data indicates there is a drop in both these behaviours, however there is an increase in harassment behaviour. This appears to suggest that the severity of the behaviours has decreased over time but that the behaviour has not diminished completely.

Analysis of the data indicates a small number of students are responsible for a large number of behaviours entries. These students have significant learning and behaviours needs and have additional support including RTLB, Mana Ake, individual behaviour plans, Ministry of Education high needs support.

School leadership interview

The Deputy Principal responsible for pastoral care, special education and behaviour was interviewed to understand how Sparklers was implemented in the school over the past two-years. Sparklers is a resource used in most of the Kaiapoi Borough School classrooms, teachers are not required to use it, most teachers opt to include it in their daily programme.

Sparklers is considered complementary to the other initiatives implemented in the school to support a whole school positive, and restorative approach as this teacher described:

"The Sparklers' resource actually aligns with our ethos as well, with resilience and growing, getting them to self-regulate, that's a big thing for our kids." (Teacher interview)

The school has approximately a dozen students who are considered high needs in terms of behaviour. Several of these students have come from other schools after being suspended or excluded. The school has a policy of working with whānau and collaborating with support services. Every term a social service community stakeholder meeting is held to ensure students and whānau have access to the best support available.

The school leader describes the change in the school since they have taken this approach to student management and pastoral care:

"You can actually teach now, and the children are engaged and learning, it's good because we can identify the children who are not, and talk about what's happening for them, so that's really good. Every team can do that for all the children in their team, and most likely the children across the whole school. So that's good that you can name them (emotions) and talk about them. I think that's really exciting - positive." (School leader)

Teacher interviews

Seven teachers were interviewed; four who had implemented Sparklers since it was developed in 2017 and three new staff who had adopted Sparklers since joining Kaiapoi Borough School. The teachers consistently reported using Sparklers in their classroom and felt supported by senior management who valued Sparklers and sent weekly emails identifying Sparklers' activities that were appropriate for the weekly school value focus. All teachers reported that implementing Sparklers had improved their classroom climate, supported students to learn new skills and enabled teachers to model good 'wellbeing practices' such as breathing, mindfulness and cooperation alongside students. This teacher describes the approach:

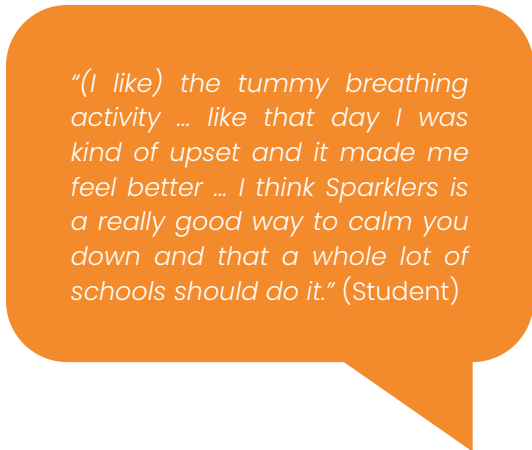
"It is pretty much positive psychology, so you're not unpacking (negative) stuff. You're actually enabling; you're giving them the tools to be positive, you're building skills to deal with issues when they come along – strengths-based teaching."
(Classroom teacher)

Student interviews

Fifteen senior school students who had been participating in Sparklers' activities since July 2017 were interviewed. Students were offered the opportunity and volunteered to talk about their experiences with Sparklers. Interviewers referred to specific activities from the website and brought examples to support students to talk about their experiences and what they had learnt.

Summary statement

Teachers and the senior leader believe Sparklers is a positive approach to support students to learn social and emotional skills. Data indicated that high level behaviours had reduced, and students were more able to describe and manage their emotions. Teachers indicated there is an opportunity to be more explicit about what students might learn through participating in the activities, rather than just running the activities without explanation, and that being consistent is key to being effective.



"(I like) the tummy breathing activity ... like that day I was kind of upset and it made me feel better ... I think Sparklers is a really good way to calm you down and that a whole lot of schools should do it." (Student)

Survey

As the data from the case studies was collected and analysed an online survey was constructed.

The purpose of the survey was to test the validity of the findings from the case studies with a wider audience of teachers and education professionals and seek to understand the extent to which teachers in other schools agreed or disagreed with the findings.

Survey design

The survey was approximately 35 questions long and took an average of 16 minutes to complete. A total of 134 teachers entered the survey and 97 completed all the questions in the survey. A \$500 incentive voucher for an online educational resource centre was offered. Impact themes were identified from the case studies which were; relationships and interactions, emotional regulation, social environment and classroom atmosphere, impact on learning and impact on bullying. There were several sub-items for each theme.

A copy of the survey is included in the Appendices.

Respondents

Thirty-four percent of the participants were from Christchurch, 19 percent from Auckland, nine percent Waikato, eight percent Tasman and the rest were spread across New Zealand regions. Most of the survey respondents were teachers and school leaders (84 percent) with the rest consisting of persons who held a variety of roles within schools including Resource Teachers of Learning and Behaviour; Mana Ake; Social workers in schools; teacher aides; health promoters in schools; a community support worker; and two student teachers on practicum.

Context

Most of the teachers who were surveyed worked with primary aged students (Years 0–8). Nine secondary teachers responded to the survey (Years 9–13). Sixty-seven percent reported they worked in a school where ‘a few’ teachers used Sparklers, 19 percent where they were ‘the only teacher’, six percent where ‘most of the teachers’ used Sparklers. None of the teachers reported working in a school where Sparklers was implemented across the whole school.

Eighty-three percent of the respondents reported working in a school where there was a whole school approach to behaviour and/or relationships. A variety of approaches were implemented in schools to support student wellbeing, behaviour and/or relationships. These included Restorative Practices (in 66 percent of schools), Positive Behaviour for Learning (in 54 percent of schools), Incredible Years (in 35 percent of schools), Mana Ake Support (in 28 percent of schools), STEPS programme (in 18 percent of schools) and Pause, Breathe, Smile (in 11 percent of schools)¹. This demonstrated how challenging it can be to determine the effectiveness of a single point intervention (such as Sparklers) when it is immersed in a suite or series of interventions (as above).

Eighty-eight percent of the teachers had used Sparklers’ activities from the website, 59 percent regularly planned them into their classroom programme, 72 percent implemented Sparklers with the whole class. The following graph demonstrates the frequency that teachers who responded to the survey implemented Sparklers.

¹ Note percentages vary as more than one answer was able to be selected, this should be read as 66% of respondents’ schools had restorative practices and so on.

Frequency of implementation

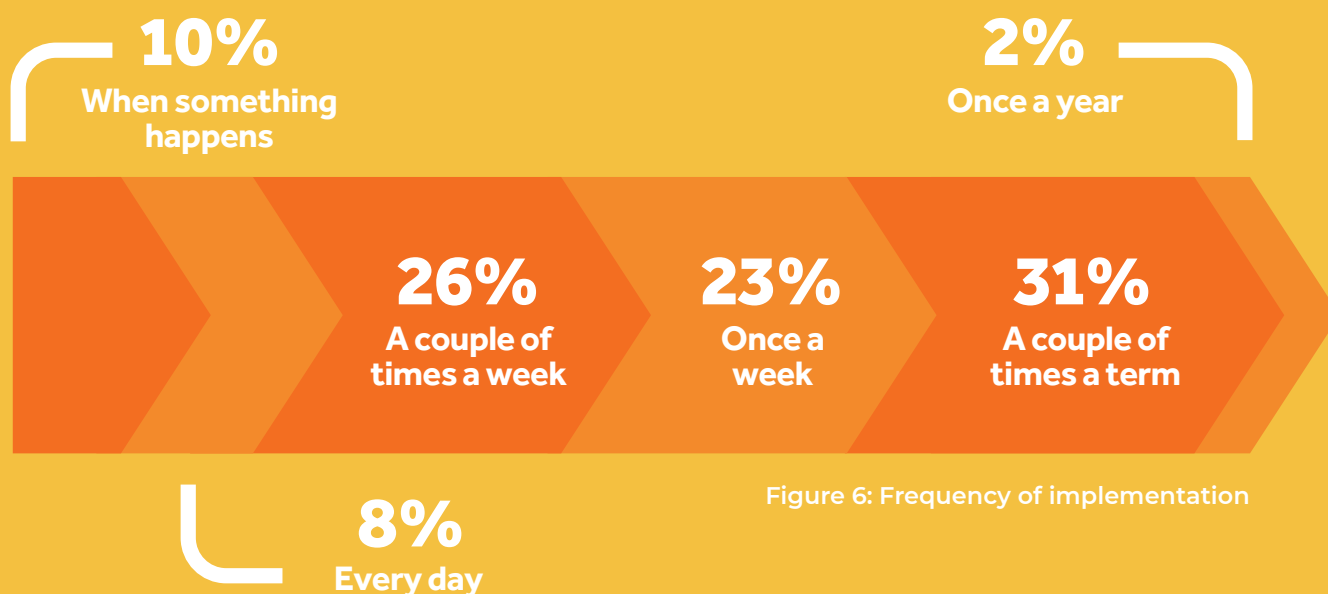


Figure 6: Frequency of implementation

Most respondents were new to using Sparklers. Fifty percent had used it less than six-months, 29 percent between seven-months and one-year, 14 percent between one and two-years and seven percent over two-years (see Figure 6). The survey indicates most survey participants have increased their use of Sparklers over time (62 percent) or remained consistent in their approach (34 percent). Only four percent reported decreasing the use of Sparklers.

The survey asked teachers to comment on the evidence they have drawn on when responding to the questions.

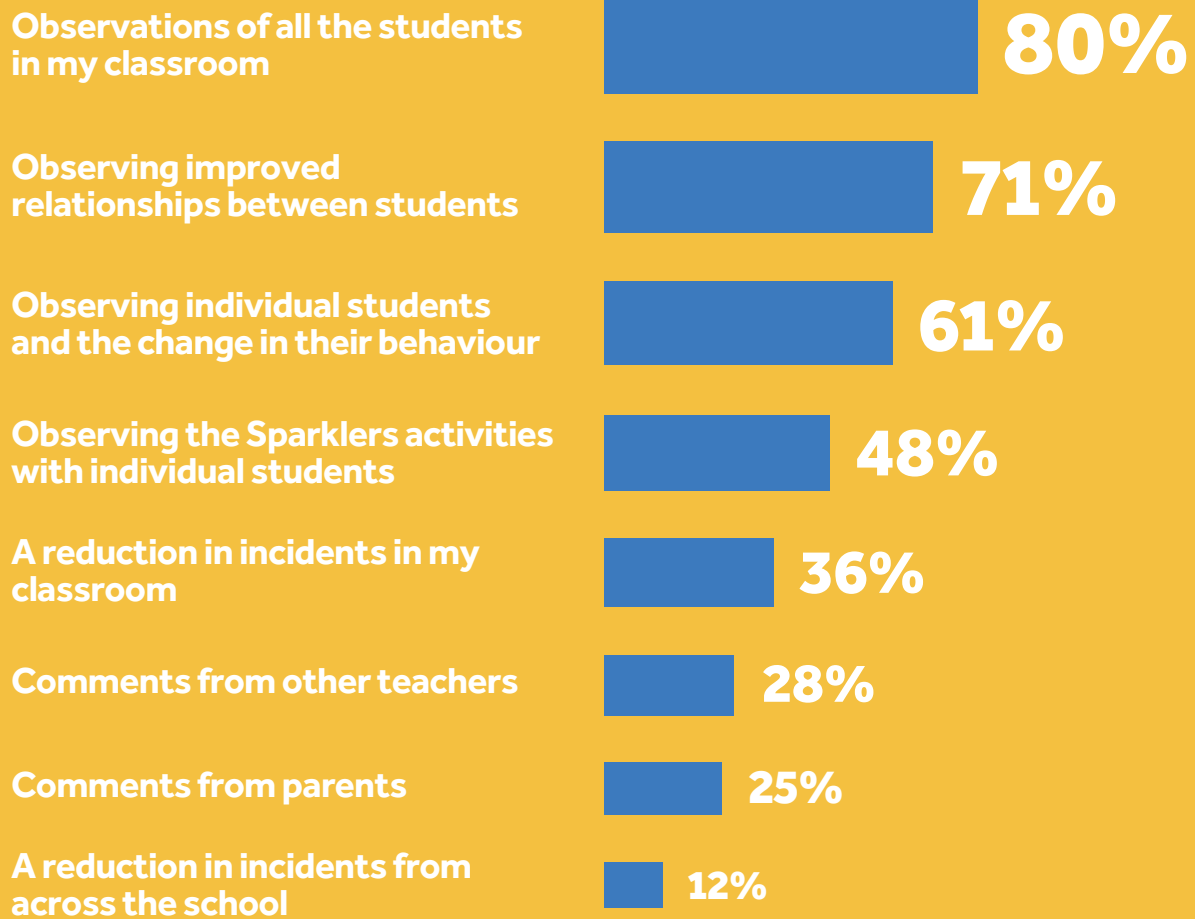
Most teachers responded to the survey questions using subjective observations as the foundation of the judgement, followed by a reduction of incidents and comments from parents and teachers (see Figure 7).

Summary statement

One hundred and thirty-seven teachers, school leaders and school support staff completed the online survey. Data from the online survey was very positive and supported the claims from the case study schools. Most teachers who responded were new to using Sparklers and reported they had increased their use over time. Teachers based the majority of their judgements on subjective observations of students and their classroom climate, with some support from behaviour incident recording and comments from teachers and parents. Over 90 percent of the respondents consistently agreed that Sparklers has made a positive difference to students in their classroom.

Source of evidence

Figure 7: Teacher judgements based on evidence



Mixed method analysis

In an exploratory sequential mixed method design, data is gathered in order to be analysed collectively rather than individually demonstrating that several points of data exist to make an evaluative claim. The following table demonstrates how data from across the case studies and surveys has been applied and analysed to answer the research questions.

The next section describes the evidence collected under the research questions.

Table 2: Data Sources

Research questions	Case Study 1	Case Study 2	Survey
What is the impact of Sparklers?	Student Survey Whole School Data Student Impact Teacher and Student interviews	Whole School Data Teacher and Student interviews	Impact theme questions
What theories of change drive the implementation of Sparklers within classrooms and schools?	Teacher interviews	Teacher interviews	Why do you use Sparklers?
What are the intended and unintended consequences for schools implementing Sparklers?	Teacher journaling Teacher observations Teacher interviews	Teacher interviews Student interviews	Open ended survey comments
What could be done to improve the resources and implementation (particularly for Māori students)?	Teacher Interviews Student interviews	Teacher interviews Student interviews	Survey questions Open ended questions survey
In what ways does Sparklers have the potential to reduce bullying in schools?	School climate survey Student Interviews	Student interviews Teacher interviews	Questions regarding impact on social skills and bullying

Findings

Teachers' rationale for implementation

Teachers' teaching practices are heavily influenced by their personal theories (Daly & Chrispeels, 2005; Twyford, 2016). The examination of teacher or school leader beliefs should always be front and centre in any school improvement work because improvement will not occur unless educator beliefs align with new practices.

In this research we asked teachers why they used Sparklers and what they were hoping to achieve by implementing the Sparklers' activities. Figure 8 on page 25 demonstrated the survey responses from 125 teachers who participated in this survey question.

The responses indicate most teachers use Sparklers to support students to learn social skills and to support student wellbeing in the classroom. Survey comments indicate teachers implement Sparklers to support the development of social and emotional learning for students:

"To help the students become aware of their own capabilities and how to deal with situations." (Survey comment)

"To help children become aware of their breathing, calm down, learn about their emotions, develop social skills and verbal communication skills." (Survey comment)

"They support general wellbeing and emotional regulation." (Survey comment)

"To build up kindness towards others, to be aware of what being kind and being a good person means, to help build social skills, focussing on positives rather than negatives."

Understanding the need to be able to stop, pause, take a breath and then get back into the task you started. To re-energise the children and get their brains ready for learning." (Survey comment)

The ease and flexibility of Sparklers was noted by several teachers as an enabler to implementation.

"They are easy to implement in the busy schedule. Kids respond positively and enjoy them." (Survey comment)

"Easy to refer to kids for calming and it's instantly done with no resources." (Survey comment)

Teachers also noted that Sparklers aligned with the values of the school and supported wellbeing across the community.

"Children like it, fits into our values lessons, helps with self-regulation." (Survey comment)

"To help develop social skills, promote wellbeing and resilience throughout our school community from the students, staff to the community." (Survey comment)

In teacher interviews within case study schools several of the teachers noted they did not explain to students what Sparklers was, or why they were doing the activities. They implemented the activities but did not necessarily talk about the purpose of the activity. When we asked teachers what they would change about how they implemented Sparklers, a common theme was to be more explicit about what students were learning through the activities. This is best described by these teachers:

"I think to make more explicit links to what they're doing, because I didn't (at the start), I wasn't given any direction whether I should be, there's lots of information on the website. (For example) I'd say this is the way we're building up resilience and so on. I haven't explained too much because I'd done a few activities and I just carried on doing them. What I'm going to do is when I introduce them, I'll say, 'Right this is what we're looking at, we're looking at how people see each other', so explain all the context for them whereas I haven't done that. I just thought at the start I'd already done a few activities and we've just done them as a calming down sort of activity, so I just carried on doing them. But I didn't give them (students) the context ... I have talked to them lately about why we're doing this sort of thing." (Teacher interview)

"I'd like to go out and work on a Sparklers' activity and then explicitly talk about the learning involved and how that can be transferred to other areas." (Teacher interview)

Teachers in the long-term implementing school described how they believed the key to using Sparklers was consistency. The support

from the school leader ensured teachers were reminded weekly and prompted to use activities that supported other values-led activities across the school. As this teacher describes:

"I think it's just a matter of continuing to be gently relentless and just keep going and not give up and just keep reflecting." (Teacher interview)

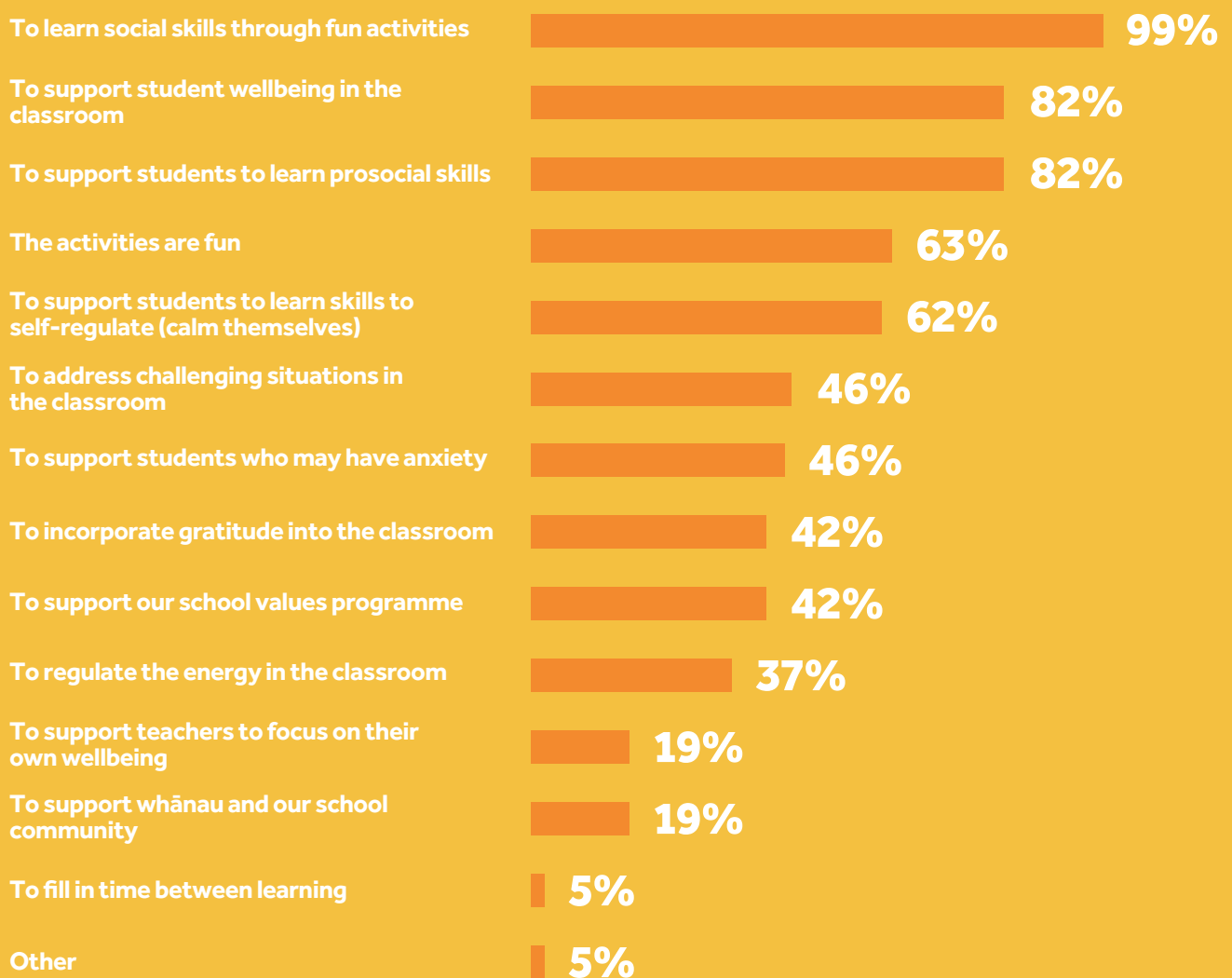
Summary statement

The overall theory driving the implementation of Sparklers in schools articulated by teachers appears to be that Sparklers can be used easily, it is complementary to other programmes and supports social skill learning and emotional regulation in a fun way that students can relate to. Teachers view Sparklers as a positive approach to support students to learn social and emotional skills. Teachers indicated there is an opportunity to be more explicit about what students might learn through participating in the activities, and that being consistent is key to being effective.



Why do you use Sparklers?

Figure 8: Why teachers use Sparklers





The impact of Sparklers

Impact for students

There is evidence that students have learnt social and emotional skills through participating in the Sparklers' activities. All teachers (N=127) who responded to the question, 'Do you think Sparklers has an impact for students?' responded positively, supporting the evidence from the case schools. Students were able to articulate strategies to regulate their emotions (student survey), had become more aware of how they were feeling (student survey), were better able to describe their feelings (student interviews) and in some cases were able to better manage challenging behaviour (teacher observations).

"Sometimes when I feel sad, I have a Nana who has bad hips and can't walk, and I just go lie in my bed, so when I feel down or stressed I would like cry in my pillow and lie there breathing and it calms me down." (Student interview)

"Getting the right feelings, like naming it right. Like let's say if you want to be a performer, like you need to know like the director might tell you to be jealous in a scene, but you'll be envious, if he asks you to be envious." (Student interview)

Social and Emotional Learning (SEL) is "the process of providing all children and adolescents with the opportunities to learn, acquire, and practice the knowledge, attitudes, and skills necessary for identifying and achieving positive goals, identifying, understanding, and regulating emotions, showing empathy for others, initiating and maintaining positive relationships, and making responsible decisions" (Oberle & Schonert-Reichl, 2017). Social and Emotional Learning programmes in schools can support students to acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage their own emotions, establish and achieve positive goals, develop and maintain positive relationships with peers and adults, and make responsible and healthy decisions (CASEL, 2013).

There are five core intrapersonal, interpersonal and cognitive competencies that are interrelated and reflect the cognitive,

affective, and behavioural dimensions of Social and Emotional Learning; self-awareness, self-management, social awareness, relationships and responsible decision-making. The following section presents an analysis of the data to demonstrate positive shifts in student social and emotional learning as a result of participating in Sparklers.

1. Self-awareness

Self-awareness is the ability to identify and recognise emotions, thoughts, and the influences on behaviour. It includes recognising strengths and challenges and being aware of goals and values. High levels of self-awareness require recognising how thoughts, feelings, and actions are interconnected.

Teachers in both short-term and long-term implementing schools observed that students were more able to describe how they felt after participating in Sparklers' activities. All the teachers who responded to the survey agreed or strongly agreed that Sparklers' activities have helped students describe how they are feeling to other students. Eighty-eight percent of the teachers believed Sparklers' activities increased the ability of students to talk about their own emotions.

This teacher describes how students in her classroom are better able to describe their feelings:

"The language around it and talking about the feelings and explaining what that feeling is ... some children they will say they're sad when actually they mean they're worried about something. I think that's a really important part of it because it clarifies for the children how they feel, that's emotional literacy." (Teacher interview)

An analysis of the whole school survey responses at the short-term case school, noted an increase in the use of language to describe feelings in the implementing classrooms. After implementing Sparklers for a period of eight-weeks students used the language that is common in the activities:

“When I get upset, I try the minute breathing, or I go outside and run around to release the energy of those positive endorphins.”
(Student interview)

In the post-intervention survey, we asked students about kindness. Students were more likely to note something positive about themselves after they had participated in Sparklers, often noting that it occurred when they were participating in a Sparklers’ gratitude activity:

“Mina and I were playing a compliment game on the playground and some of the compliments she gave me were very nice.”
(Student survey)

Teacher responses in both interview data and survey data indicate that after implementing Sparklers, even for a short period of time, students are able to describe their emotions more accurately.

“One thing I have noticed is they (students) actually can differentiate between emotions and they can name emotions now. When we first introduced it, the things they were shouting out, when we wanted to use emotions - weren’t emotions. I don’t think they really knew what an emotion was, or if they did, they only knew happy, sad, or angry.” (Teacher interview)

Teachers who had implemented Sparklers for a longer period (over six-months) noted it changed the dynamics of the classroom and enabled conversations around feelings. The teacher used Sparklers to ‘check in’ with her students and monitor their needs:

“Great gauge on where kids are at each day. Starts up conversations. Identifies needs that may need to be addressed in the day ahead or before beginning the day.” (Teacher survey comment)

2. Self-management

Self-management is the ability to regulate emotions, thoughts, and behaviours effectively, including stress management, impulse control, motivation, and working toward achieving personal and academic goals.

Several sources of data indicate that implementing Sparklers activities improves the ability of students to regulate and manage their own emotions. The survey indicated over 90 percent of teachers believed that using Sparklers activities helped students learning skills to calm anxious feelings, and supported students to manage their feelings (94 percent).

The whole school survey at Waimairi School indicated students who were in an implementation classroom were more likely to implement a positive Sparklers’ strategy if they found themselves getting upset at school. Students in control classrooms were more likely to seek help from an adult (34.5 percent), walk away (42.8 percent) or choose a negative response (17.8 percent) (such as hitting or answering back). Students in classrooms where Sparklers was regularly taught for an eight-week period were more likely to choose a Sparklers’ strategy (43.2 percent) – most often a calming strategy such as minute breathing or tummy breathing. The data indicates students did learn new skills to regulate their emotions as a result of participating in Sparklers. Interviews with teachers in both short and long-term implementing schools indicated teachers had observed students implementing strategies to regulate their emotions.

“One of the boys came up and had a bit of a thing going on at lunchtime and he said, ‘I used the tummy breathing because I was really angry’. He really gets worried about everything, he used to sit with his hoodie up and I think it’s been really good. I’m seeing positive things for him from it, it’s early days you know, I think it’s a long game, I don’t think it’s a short game.” (Teacher interview)

This teacher describes how regularly using Sparklers enabled her to manage the energy of the whole class through the timely implementation of an activity.

“This year I’m in new entrant Year 1. I used it quite a lot, I had a very overactive class, I think Sparklers was my saving grace, my bible, because it was one way I could calm them. Sometimes I used it after each break, just something little, just to calm them back down, and we made things like the origami boats and they thought it was great and

it was just a nice calming time.” (Teacher interview)

While data indicated students had learnt strategies to regulate emotions, it was not able to indicate the extent to which students used these independently. Teachers who had implemented Sparklers for the short-term acknowledged while students had learnt strategies, they could not determine if students used them independently.

“I think the kids are learning about the values of Sparklers, about the friendships and looking after themselves and anxiety, but I don’t necessarily think it’s like transferring yet.” (Teacher interview)

Students in Sparklers classrooms, however, were able to describe Sparklers strategies and talk about how they used them in interviews. Interviews with the teachers from the long-term implementing schools revealed students were taking strategies home and with support applying them in other situations, as described here:

“I was talking to a mum just today and she said her son, he’s quite a high anxiety little guy in my class, said something like, ‘oh we did tummy breathing today’ and she said, ‘Oh is that like when you get a little bit nervous?’ and he said, ‘yeah’. So that was quite cool, they had a conversation on the way home about it. She’s a pre-school teacher so she knew about it because they do it there. I thought that’s really cool. We had the Life Education bus today, and he was quite nervous about that, so I targeted it this week to do the tummy breathing one. Just before we left today, I said, ‘if you get a wee bit nervous, you know, feel your tummy and do those nice breaths’ and he goes, ‘Okay’ and he was perfectly fine. It was great.” (Teacher interview)

3. Social awareness

Social awareness is the ability to take the perspectives of others, including those who come from different cultures and backgrounds, to empathise with others, to understand social and ethical norms, and to recognise resources and supports in family, school, and community).

Data indicates that for some students Sparklers has helped them be more aware of other students and how they are feeling. Ninety-four percent of the teachers who responded to the survey agreed, or strongly agreed, that Sparklers helps students to understand other students’ feelings. Ninety-eight percent believed it helps students seek help when they are in a difficult situation, and enabled students to stay connected to other students and teachers (98 percent).

Interviews with teachers and students indicated students were more aware of others. This teacher describes how she has seen the language between students improve over time:

“I’ve noticed them using more language (with each other) like when they do ‘the loop the loop’ or they talk about working together as a team, you hear that sort of language going out into the playground. I’ve got a girl with cerebral palsy in my class and when we do the fruit salad game, they always say, ‘oh we need to show respect to Sophie, because she might fall over if we rush too quickly and do fruit salad’. So, there are little things, like they’re learning those values.” (Teacher interview)

Students who were interviewed described how they could tell if someone was upset by:

“They wouldn’t talk when it’s not necessary, they would be edgy.” (Student interview)

Several described how they could resolve situations with other students:

“I try to sort it out with them, but if that is just making it worse, try giving your friend something kind, walking away or giving them time to sort it out.” (Student interview)

“Try and talk to them or do non-verbal communication, walk away and do tummy breathing.” (Student interview)

The responses varied and students acknowledged it wasn’t always easy to resolve situations like this student.

“Say sorry, ask a teacher to help me because some of them don’t forgive easily.” (Student survey comment)

While some students directly referred to Sparklers' strategies to help them resolve a social situation, it is difficult to determine if the intervention has made an impact. In the long-term implementing school Sparklers has been implemented alongside several other approaches designed to support social awareness and restoration. In the short-term implementation school, the teachers agreed they had not implemented it long enough to see real change in the school. Several teachers did note however the impact of teaching gratitude in particular, and the importance of these activities in social awareness:

"The gratitude activities, I think that's made them kinder. I've certainly been reading lots of research about the gratitude and happiness, there's a clear link." (Teacher interview)

4. Relationship skills

Relationship skills provide children with the tools to form and maintain positive and healthy relationships, communicate clearly, listen actively, cooperate, negotiate constructively during conflict, solve problems with others effectively, and offer and seek help when needed.

Both case studies indicated that implementing Sparklers has had an impact on student-to-student relationships and interactions. Students and teachers described observing and experiencing positive changes in relationships and identified ways in which students' social and emotional skills were developed through participating in Sparklers' activities.

"It's very good for bringing up those conversations with their friends ... we've been talking about emotions, so you know, remember our Sparklers' activity, where are you feeling on this chart today? It just helps to give the children that reference and way into talking about things rather than just saying, 'I feel sad', they can actually talk about 'I'm feeling a bit low today and that could be because I'm tired', and you know and things like that." (Teacher interview)

Eighty-six percent of teachers who were surveyed strongly agreed or agreed

using Sparklers' activities has supported friendships between students and positive social interactions between students. Eighty-four percent strongly agreed or agreed Sparklers supported conflict resolution between students. During a teacher interview a teacher noted how a student was struggling with friendships and felt bullied by other children. She describes how the focus on relationships through Sparklers, with the support of teachers, helped him to implement some changes at school to better manage relationships:

"The boy was really having trouble at school and being bullied by the children He doesn't know how to talk to other people sort of thing, like he wants to play a game so he'll just join in or something and they'll say, 'Oh you can't play it because you know we've already got four in that team'. He'll say, 'Oh you don't like me', and so we've been teaching him - if you want to play go and ask at the beginning and things like that. The first few weeks were a bit rocky but the last couple of weeks he's been more able to say to me, 'oh I want to play but I don't know how to ask them'. So we had a few successes with him and even in class he's picked up a bit on his work, usually if he doesn't want to do anything he just stands in the corner or he'll sit under the table, but we haven't had as much of that lately so that's good." (Teacher interview)

Both schools reported a decrease in problem behaviours over the time periods that were analysed. A school relationship and climate survey taken in Term 2 prior to implementation of Sparklers, and again in Term 4, after the eight-week implementation, demonstrates an increase in positive student nominations from 65 to 90 and a decrease in negative nominations from 14 to four, indicating students experienced significantly more positive relationships/connections after the implementation and less negative connections/relationships (see Figure 1 on page 12).

5. Responsible decision-making

Responsible decision-making is the ability to make constructive and respectful choices

about their own behaviour and social interactions, taking into account safety concerns, ethical standards, social and behavioural norms, consequences, and the wellbeing of self and others.

A key driver of implementation for teachers was the desire to support students to develop social and emotional skills and improve student wellbeing. Survey data indicates teachers believe Sparklers is achieving this goal with 96 percent of teachers indicating students have developed social skills through participation. It is difficult to attribute the extent to which these skills have led to students being able to make better decisions and choices from the existing data.

The student survey data indicates students were more likely to report they would employ a Sparklers' strategy if they had to resolve a difficult situation with friends after being exposed to Sparklers (32 percent increase in strategy response). However, it is difficult to determine if they would implement these strategies when in this situation. Responsible decision-making is the ability of students to employ the social and emotional skills they have learnt in an interactive way, across a variety of contexts for a sustainable period. A longitudinal study would be the best way to determine if Sparklers impacted on student social decision-making. Teacher observations and reports indicate teachers believe Sparklers has the potential to impact students in this way, as described here:

"They (Sparklers' activities) allow for many different opportunities for the tamariki to participate in a variety of ways to build their own kete and empower themselves to be better equipped for tough situations and how to manage them to gain a positive result." (Teacher survey comment)

Summary statement

Implementing Sparklers in classrooms has had a positive impact for students' social and emotional learning, including raising self-awareness, self-management, social awareness, and relationship skills. There is some evidence that over a period of time this can lead students to integrate these skills to make responsible social decisions.

1.2 Impact for teachers

The findings from across the data sources indicate that implementing Sparklers has a positive impact for teachers, particularly as it improves the quality of the social and emotional environment in the classroom. The teacher survey indicated teachers who implemented Sparklers in their classroom noted a change in the overall social environment and classroom atmosphere. Figure 9 demonstrates the majority of teachers who responded noted that using Sparklers has helped create an emotionally supporting classroom (93 percent), improved the emotional climate (91 percent) and helped to create an inclusive environment for learning (88 percent).



Using Sparklers has... ■ ■ ■ What the teachers think

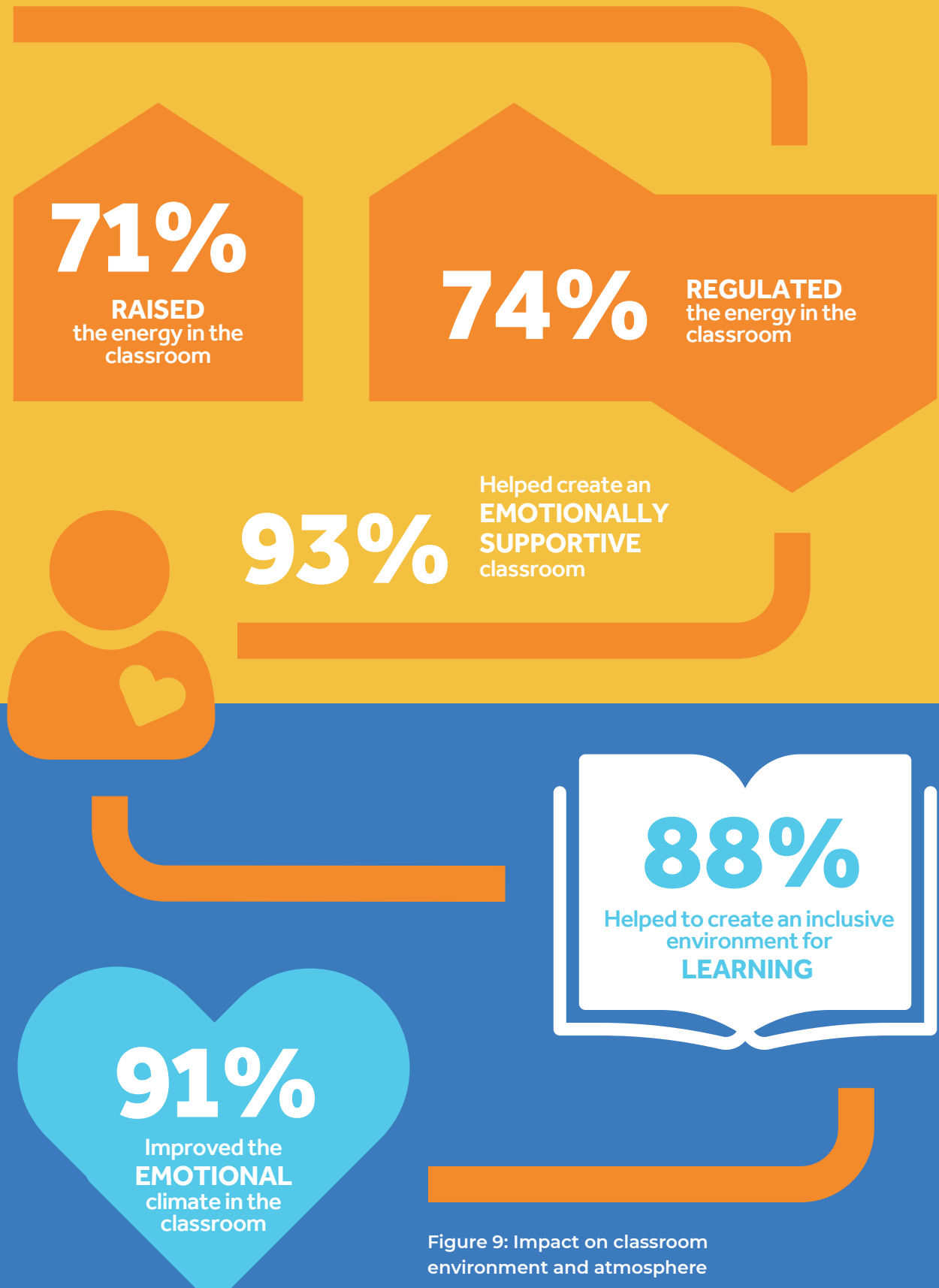


Figure 9: Impact on classroom environment and atmosphere

Teachers also noted that using Sparklers has increased the participation in activities within the classroom. Students who would not otherwise participate in classroom activities due to severe behaviour, have participated, and students are keen to join in the sessions as this teacher describes:

“The activities can calm and I love teaching it, I enjoy watching their faces and Kelly (team teacher) and I were also saying, when we are asking them questions there are a lot of hands up, you know there are other things we do and there are not many hands up.” (Teacher interview)

Teachers in the short-term implementation classroom noted that over a short period of time students were able to participate without laughing and giggling. As this teacher describes, the activities have led to students participating in an activity that requires them to sit quietly and concentrate over time:

“We were just talking about the breathing one, how when we first started about four-

weeks ago there was lots of giggling and they couldn't be still on the floor. But four-weeks later there are only one or two who are being silly and sitting up and watching people and we're just ignoring those people. Most of them can lie on the floor for a good couple of minutes now ... I did notice how much the giggling and things like that had decreased. For a start it was hopeless and then when they, you know, go up and down and things like that, all the concentration went on the boat, so it was like the boats were the things, but now they can put a boat in their tummy and they're okay.” (Teacher interview)

In the survey 77 percent of teachers believed Sparklers helps prepare students for learning, and 75 percent of teachers believed it helped students to engage in learning. Qualitative data indicated teachers often used Sparklers' activities when students returned from the playground with the intention of focussing the students into the learning activity that would follow.

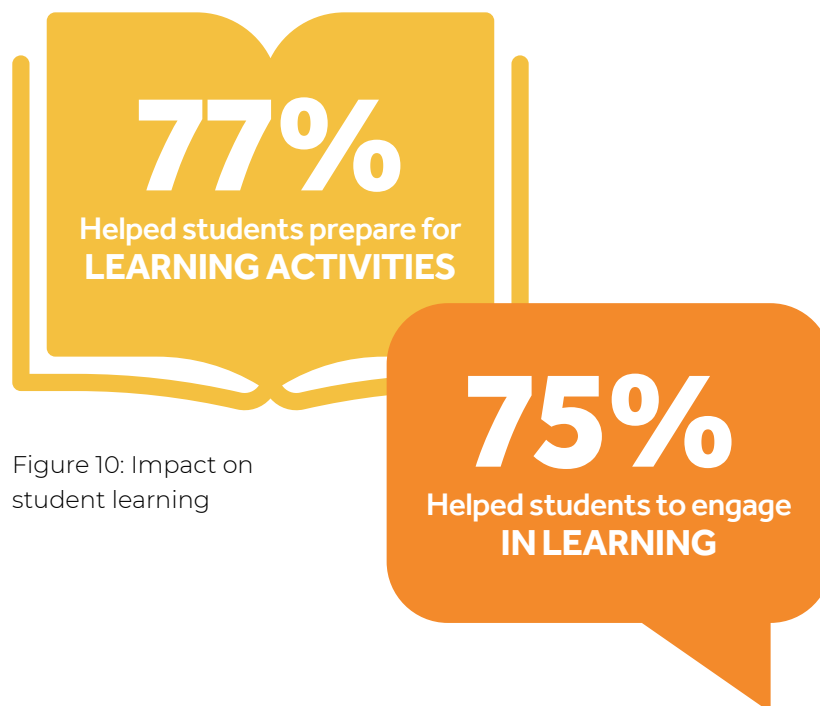


Figure 10: Impact on student learning

There is evidence in the teacher interviews that when teachers participate in the activities it has an impact on the teachers as well as modelling positive strategy use to the children. These teachers explain how they have adopted the tummy breathing within their classroom:

“Well the tummy breathing has been excellent, and I now do that, the children understand this is to relax me, and so we do tummy breathing (together) as a start and then go into the activity.” (Teacher interview)

“I’m not the guru, but I think for me it does a lot rather than just teaching the children. It actually makes me less stressed, so when I do this (demonstrates) ... the kids are all, ‘look, she’s tummy breathing’. So, they understand me better – today I did it several times.” (Teacher interview)

In an interview with two teachers, one describes how tummy breathing has led to students being able to regulate their own emotions, and how she has modelled this to students.

“Three of the boys are using tummy breathing and they call it, well they call it boat breathing ... you go through your levels of breathing and statues and making the boat on their tummy. When they first did that it was like puff puff, and now they’ve got the calming feeling. Because we’re doing the zones regulation as well, so when they feel themselves getting into that yellow (zone), they go into the breathing tunnel and they can do their breathing.”

(Other teacher) *“Have you got a breathing tunnel in your class? ‘Yes’. Oh my gosh that’s so cool.”*

“I like to go in there sometimes, I’d go, ‘hang on I’m just doing some breathing’. It’s good for them to see you doing it too.” (Teacher interview)

While there is evidence of teachers modelling Sparklers’ activities, there is not a shared understanding that teacher wellbeing is important to student wellbeing, or that

the website and resources could support teacher wellbeing. The Sparklers website has a dedicated teachers’ page designed to support teacher wellbeing. One teacher who responded to the survey indicated they had used the teachers’ resources and set up a staff wellbeing committee at school and this had a positive impact on the teachers:

“Staff wellbeing within our staff has increased this year. The resources we have sourced have been great to use as part of our journey.”

Summary statement

Using Sparklers in classrooms can improve the social and emotional classroom climate, increase student participation in activities, and support student engagement in learning. Teachers report that modelling the Sparklers’ strategies, particularly breathing, can support their own emotional regulation and set a positive example for students. The approach to teacher wellbeing, part of the Sparklers’ approach, appears to be underutilised by teachers and schools.

Unintended consequences

Teachers were asked about unintended consequences – the positive and negative outcomes they did not expect as a result of implementing Sparklers. Two teachers who were interviewed indicated they did not expect students who had severe behaviour needs to respond positively or even participate in the Sparklers' activities, however the students showed interest in the activities. The teachers comment:

"The other interesting thing that happened with us is that we have a child in our class who has severe behaviour and he doesn't come to the mat and that's fine, he's on the outskirts of it. But you can see him listening to what's going on. I haven't seen him give a compliment yet. We'll work on that one." (Teacher interview)

"I think one of the surprises for me was the child with really extreme behaviour, because I didn't think he'd have a bar of it. He doesn't like to follow what the other children are doing and so for him to be listening in, that surprises me. It's hooked him a little bit anyway." (Teacher interview)

School incident data in both schools indicates severe behaviour has reduced over the period that Sparklers has been implemented. In the long-term implementing school, the severity of behaviour has dropped significantly over the past two-years. The school leader interviewed commented the student behaviour is much less challenging than it has been the past.

"If you walk around the rooms, most of the classrooms now would be engaged, and often when we get called over, a teacher's asking for support because the child is calling out, just making noises, or being loud, we're not seeing the high level that we saw before." (School leader)

This cannot be attributed to Sparklers alone, as there are other interventions to support a reduction in challenging behaviours, however the combination of these initiatives has reduced incidences of severe behaviour in both schools.

Summary statement

While Sparklers is not designed for students with severe behaviour, these students respond positively to the activities and there is a reduction in the severity of behaviour displayed within the school setting over time.

Resources

This research sought to understand how effective the resource support, a website and weekly newsletter were, and how they could be improved to support students, teachers and whānau.

Newsletters

A weekly newsletter is sent out on a Thursday to a database of nearly 7,000 teachers in New Zealand. In the survey 78 percent of the respondents received the newsletter by email. Ninety-five percent of these teachers regularly read the newsletters and 96 percent said they found them useful. There were 54 comments regarding the newsletter, 47 were positive, seven provided suggestions for improvement that concerned timing, the amount of content covered, or how they were presented. Table 3 provides a snapshot of the comments.

There is evidence in the survey that the content is highly relevant to teachers and there were many requests asking if the content of the newsletters could be shared in their own newsletters or amongst colleagues, illustrated by these comments:

"Love the ideas for the week and links to local community (e.g. long weekends etc). I on-share the most relevant tasks/videos with teachers across our school, I coordinate our wellbeing team. Most popular were Te Whare Tapa Whā templates and ideas and breathing videos during Māori Language Week." (Survey comment)

"Are we able to use the content and could it be shared in our school newsletters for our school community?" (Survey comment)

The weekly newsletter appears to be an effective way to communicate with teachers and support implementation in school, as well as potentially spreading ideas to parents and community. There are opportunities for improvement, mainly regarding timing and

the amount of content, however most of the survey respondents were very positive about the weekly newsletter. A statement should be made on the newsletter regarding the opportunity to share the content with the school community.

Table 3: Suggestions for newsletter improvement

Example of comments	
<p style="color: #f4a460;">Positive feedback</p> <div style="background-color: #f4a460; color: white; padding: 10px; border-radius: 15px; display: inline-block; margin-top: 10px;"> <p style="font-size: 1.2em; margin: 0;">47 comments</p> </div>	<p>“I think they are great and being a social worker in schools I often forward on certain topics to teachers and other SWIS.”</p> <p>“They are inspirational!”</p> <p>“Extremely easy to read, I wouldn’t change anything.”</p> <p>“I really enjoy them, love getting weekly links to resources I can use with my tamariki.”</p> <p>“I like how they are brief and key information is easy to access by an attached link to each activity. Activities advertised are easy to use in the classroom.”</p>
<p style="color: #f4a460;">Suggestion for improvement</p> <div style="background-color: #f4a460; color: white; padding: 10px; border-radius: 15px; display: inline-block; margin-top: 10px;"> <p style="font-size: 1.2em; margin: 0;">7 comments</p> </div>	<p>“Get them to us Sunday or Monday instead of later in the week.”</p> <p>“Have a summary of topics covered at the beginning to click on those of most interest.”</p> <p>“I like being sent two or three ideas at a time as this can be less overwhelming than searching the website.”</p> <p>“They are quite wordy I find - would be great to have two sections – one on suggested activities for the week, one on updates and chat.”</p>

Website

Eighty-eight percent of the respondents regularly use the website. Ninety-seven percent of the respondents indicated they found the website easy to use.

Figure 11 demonstrates how survey respondents utilised the website and how they implemented the activities.

It appears as though teachers are printing out activities as both the interview data and survey comments indicate there are some challenges printing from the website. One teacher had printed the whole website into a document and had written all over the activities, with sticky notes, noting changes she had made to activities and what worked well when she had used them. She describes how she uses a hard copy:

"I printed the whole website, I use it (Sparklers) so often, I pick it up when I have 10 minutes, like before lunch, and go to an activity, I have written all over it and have sticky notes sticking out on my favourites – I still think having a hard copy is easier." (Teacher interview)

Providing a PDF printable version of the activities from the website may support more regular implementation in classrooms. This teacher stated she used Sparklers' activities several times a day with a young class who had 'a lot of energy' and she believed that being consistent in her approach with Sparklers had made a significant difference to the classroom environment, supporting students to engage in learning.

The data indicates that most survey respondents could find the activities they needed, could adapt these if required and were able to follow the progression to the next activities. They were less likely to use the term-by-term guide or the links to the key competencies.

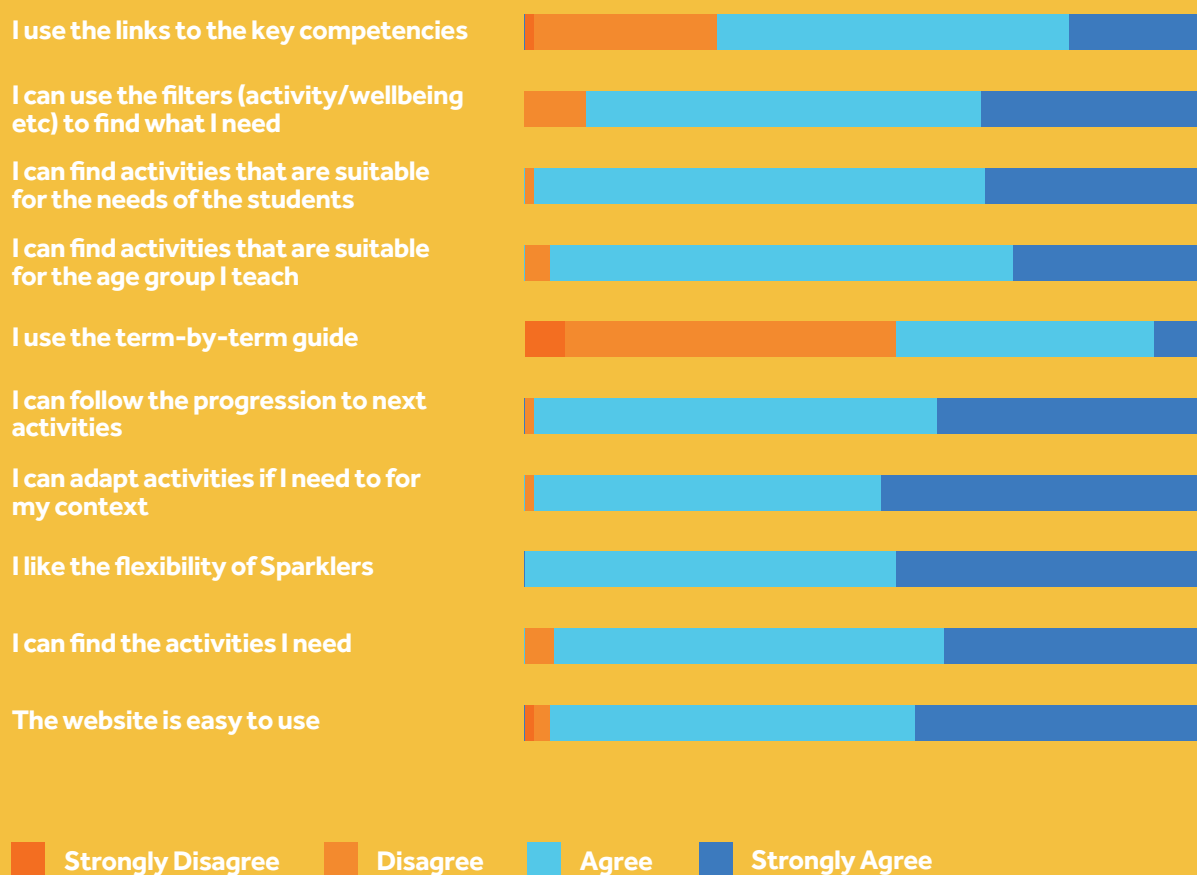
There is evidence that teachers are less likely to use the teacher and whānau parent page. Seventy-two percent of teachers had visited the teachers' page and 32 percent had visited the whānau page. Of those who had visited the teachers' website under half had accessed the recommended resources and only 10 respondents reported they had a teachers' wellbeing committee at school (a recommendation on the teachers' page). Figure 12 demonstrates that these resources have had limited exposure amongst the survey respondents.

As mentioned previously, one teacher who responded to the survey indicated they had used the teachers' resources and set up a staff wellbeing committee at school and this had a positive impact on the teachers.

Of the 30 respondents who had visited the whānau page, half had accessed the parenting guides (See Figure 13).

Resources & website

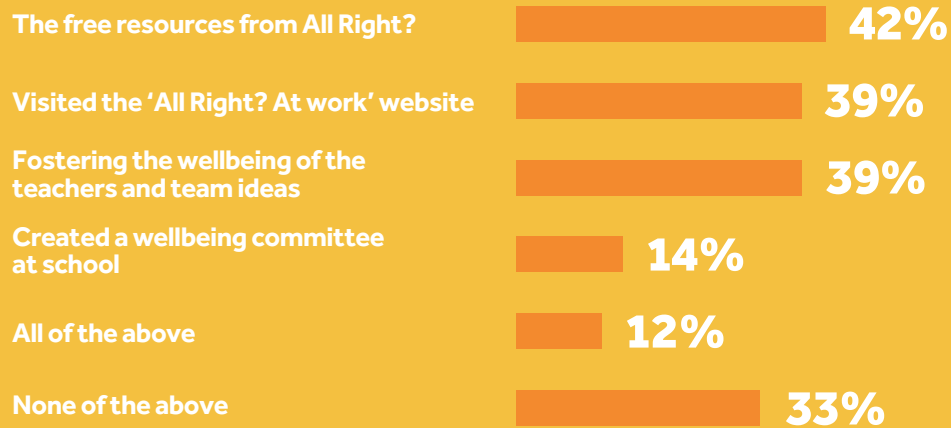
Figure 11 : Use of resources and website



Teachers' page

Have you used any of the following?

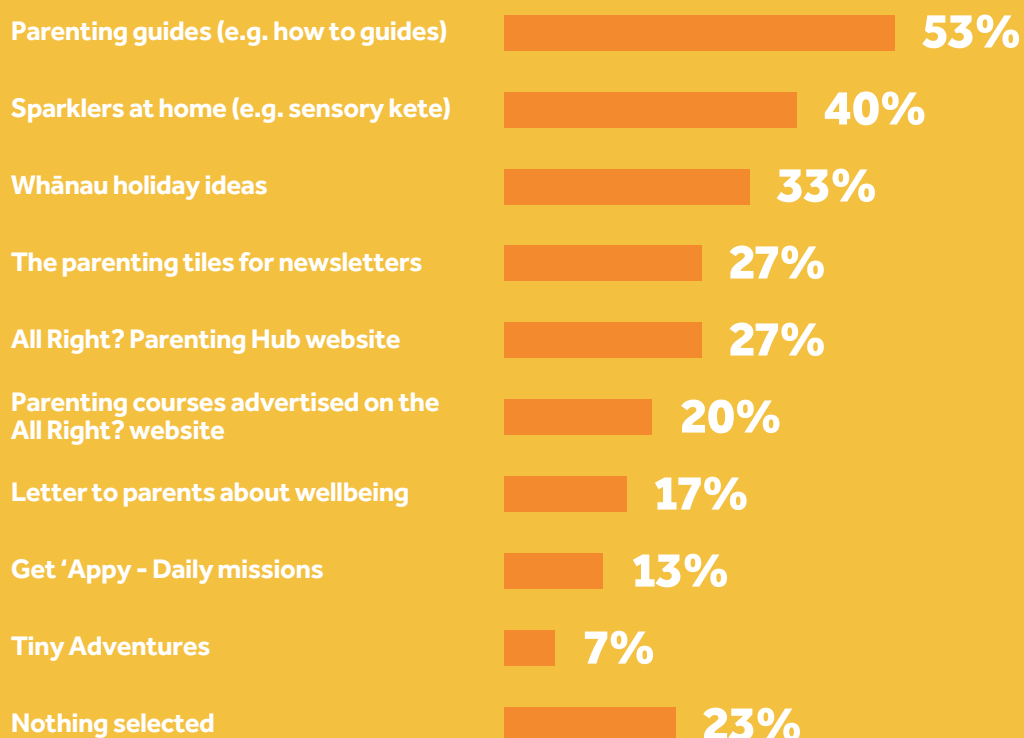
Figure 12 : Use of teachers page



Whānau page

Have you used or referred whānau to any of the following?

Figure 13 : Use of whānau page



At the time of this research Sparklers appears to not have reached parents and whānau of students as expected. In both the case study schools we interviewed the focus has been on implementing the activities in the classroom. In the long-term implementing school, concepts from the whānau page were shared with parents in newsletters. While it had been an objective to include parents and community in the implementation in the short-term implementation school, teachers found it difficult to do this and manage the intensity of the short-term implementation. It appears that while parents were aware of the activities and what was happening at school, the spread has remained within school. This is understandable given the relatively short life of the resource and the way in which it is implemented, through online website and emailed newsletters. There is potential to utilise the resources more fully to support both teacher and whānau wellbeing. In the long-term implementing school, teachers were supported by the Deputy Principal to implement Sparklers intentionally, as this teacher explains:

"We have a value of the week that we focus on, so she (DP) usually tries to match up the value, she sends a lesson plan including the Sparklers' activity in it, so that's probably what's got me into it more because I'm like, 'oh that looks good, just click on that and then I don't have to try and hunt through myself so that's been great!'" (Teacher interview)

Implementation

There are eight major components that are evident in the research when establishing implementation quality of a social and/or emotional learning programme (Devaney et al., 2006; Durlak, 2016; Durlak & DuPre, 2008; Elias, Zins, Graczyk & Weissberg, 2003), these are:

- 1 Fidelity - the degree to which the major programme components are delivered as intended.

- 2 Dosage - how much of the programme is delivered (e.g., how many of the sessions outlined in the curriculum were held during an intervention, and how many of the activities were completed during each session?).
- 3 The quality of programme delivery - how competently a programme implementation is conducted.
- 4 Adaptation - whether the programme was altered or adapted in any ways.
- 5 Participant engagement - to what degree students are engaged in the programme and activities.

Sparklers is not intended as a 'programme' but a set of activities that teach strategies. There is literature supporting a shift from programmes to strategies. Jones and Bouffard (2012) support integrative strategies that are designed, implemented, tested and refined in order to gain empirically supported strategies that educators can integrate into their daily practices and improve the efficiency and continuity of social and emotional learning instruction. However, even with strategy implementation these features of fidelity, dosage, quality, adaptation and engagement are relevant.

The website notes, *"Sparklers is designed around a pick-and-mix approach - teachers can choose the activities that best meet the needs of their tamariki, goals and school culture. Used 'a little and often', the activities help tamariki live brighter."* Fifty-nine percent of teachers surveyed indicated they regularly planned Sparklers' activities into their programme.

In the short-term school, the teachers agreed to including Sparklers four-times a week as this teacher reports:

"I don't think there are too many boundaries (around implementing). I think it's quite good to have, you know we had to do two mindfulness ones a week and you had to

do it four-times a week which is easy to do, that's easy. But you don't want to have it too regimented, because to be able to have a bit of flexibility and pick and choose was good too."

The short-term implementing schools demonstrated that implementing Sparklers four-times a week can make a difference to student social and emotional wellbeing. The frequency of use in the survey data (refer figure 6) indicated the frequency with which Sparklers is implemented in classrooms is highly variable and it may not be achieving a 'little and often' in many classrooms, thereby limiting the potential impact for students. One hundred percent of the teachers who responded to the survey liked the flexibility of the approach, however there may need to be stronger guidelines for teachers around implementation if the resources are to achieve their potential.

Summary statement

The website and emails are an effective way to deliver Sparklers' activities to teachers in schools. There are aspects of the website and Sparklers' approach that may be underutilised including the teacher and whānau pages. The implementation of Sparklers in schools is extremely variable, while it is recommended to be little and often, and teachers like this flexibility, survey data indicates the frequency may need to be better stipulated to achieve a sustained gain for students.

Implementation for Māori students and their whānau

A key intention of this research was to establish if the Sparklers approach is appropriate for Māori learners and their whānau. Both case study schools are in Christchurch and have lower proportions of Māori students than North Island schools. This means Māori students can be more marginalised, and teachers have less exposure to Māori students and their whānau.

While Māori focus students were intentionally selected in the short-term implementing school, significant differences could never be accounted for because of the low number of students. The students who were observed were keen to participate and reported they enjoyed the activities. Māori students in both schools are considered well served according to the ERO reports, however both schools are intentionally focussed on enabling teachers to be responsive to Māori students and their whānau.

There is an indication across the data that while Sparklers is relevant, more could be done to support Māori students and their whānau:

- There is a need for links to Te Marautanga o Aotearoa for kura and Te Aho Matua (Survey comments).
- While links are made to Pacifically Speaking and Whānau effect on the website, it was not mentioned by teachers (Teacher interviews and survey).
- Māori and Pacifica approaches have not been infused into programme, including mirimiri and breathing from te ao Māori as originally hoped (Stakeholder interview).

However, comments from the survey indicate teachers believe Sparklers is appropriate for Māori students and their whānau (99 percent). Several teachers commented in the survey that the tikanga tips and inclusion of Māori kupu (words) were important and had been used. As this teacher explained in an interview:

"I like how there are cultural and te reo references in the activities, I like how there are pointers about, you know, just be mindful of touching children's heads, and you know that sort of thing, just so that with my limited knowledge and understanding, I'm able to learn that when I'm reading about the activities what to be wary of as I'm working with children." (Teacher interview)

Survey comments indicate teachers in kura and wharekura are using Sparklers and have adapted it for their context. The focus on hauora and Te Whare Tapa Whā, as a holistic

approach to wellbeing, was mentioned in the survey responses as aligned to the values and mission of the school. There is an opportunity to investigate how activities specifically from a Te Ao Māori perspective could be included in Sparklers, rather than adapting mainstream activities with te reo Māori and tikanga adaptations. One survey respondent suggested, *“the use of a digital pin board where users can share (with permission of course) other cultural expressions of the activities on Sparklers.”*

Summary statement

Teachers believe Sparklers is appropriate for Māori students and students with diverse needs. There is an opportunity to explore how activities from a te ao Māori perspective could be implemented as part of Sparklers, particularly for kura and wharekura.

The potential to reduce bullying in schools

As the research was funded by the Mental Health Foundation, through the Pink Shirt Day Campaign, there was a focus to investigate the potential of Sparklers to reduce bullying in schools. As evidenced in the literature review, teaching children self-regulation skills and prosocial problem-solving skills is essential for preventing peer conflict. Several studies have found the development of social skills, and particularly empathy, enables prosocial behaviour in children (Raskauskas, Gregory, Harvey, Rifshana & Evans, 2010). These skills are vital for preventing and rejecting anti-social behaviour such as bullying. Evidence suggests teaching prosocial skills, as part of a programme of developing positive and safe classroom climates and enabling children to feel more connected to their teachers and school, are more effective at addressing bullying in schools (Raskauskas et al., 2010).

Based on this premise, the hypothesis proposed is that if *Sparklers contributes to the development of prosocial skills including; problem solving skills, relationship skills, emotional regulation, self-awareness, and*

awareness of others, it is likely to reduce bullying in schools.

As well as supporting prosocial emotional development in students, there are two specific ways in which Sparklers might impact on reducing bullying in schools. Firstly, by reducing bullying behaviours by those who cause harm and secondly, by increasing help seeking behaviours by those who may be harmed.

Ninety-eight percent of respondents surveyed believed that using Sparklers had reduced antisocial behaviours in their classroom. A series of other items in the survey indicate Sparklers has the potential to reduce bullying behaviour including:

- 90 percent believe using Sparklers had reduced bystander behaviours.
- 65 percent believe using Sparklers had reduced bullying behaviours.
- 74 percent believe using Sparklers has supported conflict resolution between students.

Ninety-eight percent of those surveyed believe Sparklers supported students to seek help when they are in a difficult situation. A series of other items in the survey indicate that Sparklers has the potential to increase help seeking behaviours including;

- 100 percent believe using Sparklers provides an opportunity for students to share their feelings in a supported activity.
- 98 percent believe using Sparklers helps students to stay connected to teachers and other students.
- 100 percent believe using Sparklers supports students to describe how they are feeling to other students.

Evidence from the school that implemented Sparklers over an eight-week period indicated that Sparklers had an impact on students. The School Climate Survey (refer to Figure 1 on page 12) taken in Term 2 prior to implementing Sparklers indicated students

identified 14 students who consistently caused others harm at the school, in Term 4, after the implementation of Sparklers in half the school, only four students were identified as causing harm. Conversely students who were identified as sources of support rose from 65 nominations to 90 over the same time period.

Student interviews in this school indicated that at least one student felt they had learnt new strategies for managing a difficult student at the school, as described here:

“Well one thing that has happened is I am better able to manage (a difficult student).”
(Student interview).

The long-term implementation case study demonstrated that as part of a suite of complementary interventions physical aggression and bullying behaviours reduced over time. Schoolwide data collected over a four-week period indicated that in 2017, four incidents of bullying occurred and in 2019 no incidents were recorded (refer to Figure 5 on page 17). The Deputy Principal reported that along with *“other positive and restorative interventions, aggressive physical incidents had reduced significantly over the past two-years.”*

Summary statement

Sparklers has the potential to reduce bullying in schools. The combination of evidence that Sparklers supports social and emotional learning, reduces antisocial behaviour and increases social support and ‘connectedness’ for students within the school indicates that implementing Sparklers regularly has the potential to reduce bullying.

Using Sparklers leads to...

Figure 14: Sparklers causation model

SPARKLERS ACTIVITIES



- ▶ Gratitude & giving
- ▶ Being ourselves
- ▶ Feeling good
- ▶ Balancing energy
- ▶ Managing emotions
- ▶ Showing kindness
- ▶ Using our senses
- ▶ Noticing our world

99%

BELIEVE SPARKLERS REDUCES ANTI SOCIAL BEHAVIOUS



REDUCTION IN BULLYING

- ▶ Increased pro-social skills
- ▶ Improved emotional regulation
- ▶ Improved connection to others
- ▶ Increased problem solving and help seeking

Summary

Sparklers is a resource bank of wellbeing activities for students in Years 1–8, which is aligned with the New Zealand Curriculum.

The activities can be organised by the key competencies: thinking; relating to others; using language, symbols, and texts; managing self; and participating and contributing. The purpose of this research was to investigate the impact of implementing Sparklers in a classroom, the intended and unintended consequences and the potential of the resource to reduce bullying in schools. The research was carried out over a five-month period between August 2019 and November 2019 in the two case study schools. Outcomes and impacts as described by teachers and students were used to create an online survey, which 137 teachers responded to over a three-week period in November 2019.

In the short-term implementing school, Sparklers was implemented over an eight-week period in half of the classrooms. The data indicated that even with a relatively short implementation period of eight-weeks there was an impact for students in those classrooms that implemented. Positive shifts were evident in prosocial strategies that students used to regulate their own emotions and resolve difficulties with other students. Over an eight-week period teachers observed and reported small changes in focus group students. Students reported positively about the activities, some students talked about using strategies they had learnt at school at home to regulate emotions. Teacher interviews indicated all the teachers would continue with Sparklers post the eight-week inquiry period.

In the long-term implementing school, Sparklers has been implemented for the past two-years in most classrooms. The data indicates that teachers viewed Sparklers as a positive approach to support students to learn social and emotional skills. Data indicated

that high level behaviours had reduced, and students were more able to describe and manage their emotions. Teachers identified there is an opportunity to be more explicit about what students might learn through participating in the activities and that being consistent is key to being effective.

One hundred and thirty-seven teachers, school leaders and school support staff completed the online survey. Data from the online survey was very positive and supported the claims from the case study schools. Most teachers who responded were new to using Sparklers and reported they had increased their use over time. Teachers based the majority of their judgements on observations of students and their classroom climate, with some support from behaviour incident recording and comments from teachers and parents. Over 90 percent of the respondents consistently agreed that Sparklers has made a positive difference to students in their classroom.

The overall theory driving the implementation of Sparklers in schools articulated by teachers appears to be that, Sparklers can be used easily, it is complementary to other programmes, supports social skill learning and emotional regulation in a fun way that students can relate to. Teachers view Sparklers as a positive approach to support students to learn social and emotional skills. Implementing Sparklers in classrooms has a positive impact for student social and emotional learning, including raising self-awareness, self-management, social awareness, and relationship skills. There is some evidence that over a period of time students will integrate these skills to make responsible social decisions.

Using Sparklers in classrooms can improve the social and emotional classroom climate, increase student participation in activities, and support student engagement in learning. Teachers report that modelling the Sparklers' strategies, particularly breathing, can support their own emotional regulation and set a positive example for students. The approach to teacher wellbeing, part of the Sparklers' approach, appears to be underutilised by teachers and schools.

While Sparklers is not designed for students with severe behaviour, these students respond positively to the activities and there was a reduction in the severity of behaviour displayed within the school setting over time.

The website and e-newsletters are an effective way to deliver Sparklers' activities to teachers in schools. There are aspects of the website and Sparklers' approach that appear to be underutilised including the teacher

and whānau pages. The implementation of Sparklers in schools is extremely variable, while it is recommended to be little and often, survey data indicates the frequency of implementation is important to achieve a sustained gain and should be better defined.

Teachers believe Sparklers is appropriate for Māori and students with diverse needs. There is more opportunities to explore how activities from a Te Ao Māori perspective could be implemented as part of Sparklers, particularly for kura and wharekura.

Sparklers has the potential to reduce bullying in schools. The combination of evidence that Sparklers supports social and emotional learning, reduces antisocial behaviour and increases social support and 'connectedness' for students within the school indicates that implementing Sparklers regularly could reduce bullying.



Recommendations

The survey data indicates that implementation is very ad hoc within schools. None of the survey respondents worked in an environment where Sparklers was implemented across the whole school. The potential social and emotional learning may be compromised when only a few teachers in each school implement, as the gains are limited to individual students and classrooms. If Sparklers is to be used with the intention of reducing bullying behaviours and encouraging prosocial support behaviours in schools, it would have to be adopted school-wide to ensure all children are exposed to the strategies.

A simple logic model and implementation guidelines could be developed to be more specific about 'little and often'. A key feature of the resource is flexibility which is appreciated by teachers, but there needs to be more support and structure to ensure teachers are implementing the activities frequently enough for effect. The role of school leadership in supporting implementation could be further investigated as through this research it appears it was pivotal to uptake in the long-term implementing school.

Schools adopting Sparklers need to consider how relationships and behaviour policies might impact on implementation. Evidence suggests schools which have practices that are consistent with a positive approach are more likely to adopt Sparklers. The social and emotional learning through Sparklers' activities supports students to develop the emotional literacy and regulation required to participate in restorative practices. Ensuring that teacher beliefs support positive behaviour approaches rather than punitive or deficit approaches will ensure Sparklers is more likely to be implemented as intended.

The learning from Sparklers activities needs to be made explicit to students. A key feature of the activities is that they are fun, however

teachers should be clear about what students are learning through the process of gratitude, kindness, mindfulness and so on to maximise impact.

Printable guides of activities could be considered in PDF form, in year levels. The research indicated teachers are printing off activities to use. It appears that printable resource books may enable some teachers to use the activities more often, reflect on the activities they use and adopt a 'little and often' approach.

Aspects of the resource may be being underutilised, particularly the whānau and teacher wellbeing sections. There is an opportunity to investigate how these aspects of the resource can be maximised. Survey respondents who used these resources were very positive. Information regarding sharing of Sparklers' resources needs to be clear on the website, as many teachers have shared resources and links through school newsletters.

There is an opportunity to develop further resources that come from a te ao Māori perspective particularly for kura and whare kura with links to Te Marautanga o Aotearoa. Survey respondents indicated the resource is appropriate for Māori and students with diverse needs; however, most activities are adapted for Māori rather than emanating from a te ao Māori worldview.

An online space for teachers to share ideas and teacher practice was suggested within the survey comments. The online resource and newsletters, while effective, allow only one-way communication and do not enable feedback loops from teachers to the Sparklers' developers, or communication between teachers. There is an opportunity to support the spread and potentially effectiveness of the resource through enabling teachers to communicate and share practice.

There is an opportunity to investigate a form of Sparklers suitable for secondary schools. The acquisition of prosocial skills is vital in childhood, however research on executive control during the teenage years points to shortfalls in emotion regulation, coping, and decision-making as three linked capabilities associated with youth challenge and trauma. All three capabilities are critical to helping young people better navigate challenges and prevent or reduce externalising and related problems (Modecki, Zimmerman-Gembeck & Guerra, 2017). The strategy rather than programme approach would work well in a secondary setting.

Sparklers should be supported to scale and spread. The research indicates students

enjoy participating in the activities, they are engaged, and gain strategies in social and emotional learning as a result. Although Sparklers is only two-years old, evidence suggests it has contributed to positive outcomes for students and teachers when implemented consistently. Several countries, including the United Kingdom and Australia, have launched national initiatives for school-wide social and emotional learning in the past decade, with funding support and research.

There is a need for continued research to support implementation in schools. To measure the long-term effects of Sparklers a longitudinal study would need to sit alongside the spread and scaling of Sparklers.



Appendix 1: Ethical procedures

All research activities adhered to strict ethical standards, including informed consent and avoidance of harm. Written information and consent forms were provided to each participant. Care was taken to ensure consent was voluntary and there was a clear understanding as to the purpose of the research and data collection activities.

Students gave consent and were interviewed with a teacher present. All participants were made aware they were under no obligation to accept the invitation to participate in the research and their right to:

- Decline to answer any question(s);
- Withdraw at any time and information they contributed at any time up until the report is written;
- Ask any questions about the study at any time during the participation;
- Provide any information on the understanding that your name will not be used.

School data was kept in a locked file and anonymised. All data was returned to the schools and destroyed at the completion of the research. Both schools reviewed the report before publication and agreed to be identified.

Teachers were invited to participate in the online survey via the newsletter, email list and social media. Consent was provided at the beginning of the survey; participants were told that they would not be identified through the survey or subsequent report. An incentive, the opportunity to win a school resource voucher, was offered, contact information was given through a separate link that could not be linked. The contact details of the winner of the incentive was only accessed to notify them.

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Research Team



Dr Catherine Savage
(Kāi Tahu)

Catherine is a registered educational psychologist. She spent ten years as a senior lecturer at Victoria University where she worked on several major Ministry of Education research and development projects including the National Evaluation of Te Kotahitanga (2010). She has a background in culturally responsive educational initiatives and educational evaluation. She co-authored and implemented Huakina Mai, a kaupapa Māori behaviour initiative that promotes whānau, schools and iwi working together to build a positive school culture. Since 2014, Catherine has successfully led research and evaluation for clients such as Site Safe, Work Safe, Ako Aotearoa, All Right? Te Pūtahitanga o Te Waipounamu, Rātā Foundation, Asia New Zealand and the Ministry of Justice. She has led seven waves of evaluation examining the impact of direct commissioning of whānau through Whānau Ora. She has published and presented nationally and internationally on culturally responsive practices and the development of iwi led initiatives.



Dr Anne Hynds

Anne is an experienced educator and researcher with a passion for achieving equity and excellence. She has expertise in developmental evaluation, collaborative research methodologies and photovoice methodologies. She is the current Editor in Chief for the Oxford Bibliographies in Education (Oxford University Press). Anne is a current member of the Teacher-led Innovation Fund (TLIF) Selection and Monitoring Panel, for the Ministry of Education, New Zealand. She has previously worked as an Associate Professor for the Faculty of Education and Social Work, University of Auckland. During her time at Auckland she co-directed the Expert Partner programme for Kāhui Ako / Communities of Learning for the Ministry of Education, and she was the Director of Research for the Starpath Project for Tertiary Participation and Success (2014-2016). As a Senior Lecturer working at Victoria University of Wellington (VUW) she received an 'Award of Excellence in Mentoring' from Te Putahi Atawhai in recognition of her academic mentoring for Māori and Pasifika postgraduate students. She also led the National Evaluation of He Kākano: Culturally responsive leadership in secondary schools and worked on the National Evaluation of Te Kotahitanga. She has published widely and worked with New Zealand and international scholars on issues related to her field of expertise.

John Leonard **(Ngāti Rangiwewehi, Ngāti Raukawa, Ngāti Whakaeue, Ngāi Tūhoe)**



John brings over 25 years' experience in the education sector, with over 16 years as a school principal. During this time as a principal, John implemented a whole school restorative approach based on building student social and emotional capability. From 2012 – 2013 he was seconded for eighteen months to lead Mau ki te Ako; the collaboration of Te Rūnanga o Ngāi Tahu, University of Canterbury and the University of Otago to deliver culturally responsive teaching and learning professional development contract for the Ministry of Education. For the past five years, he has contributed to research projects in health, work safety and education, including Huakina Mai, Site Safe, All Right? and the Rātā Foundation, and Te Pūtahitanga o Te Waipounamu.



Dr Larissa Kus-Harbord

Larissa has worked with research teams in New Zealand and Estonia for over 18 years. She is passionate about analytical work and synthesizing research evidence. She brings significant experience in participating and leading individual and partnership-based research projects in and for academic and governmental agencies. Larissa has delivered research and analysis across various portfolios including education, conservation, political science, intercultural relations, and policing. She has conducted qualitative and quantitative analyses for large scale evaluation projects, such as the school-based professional developmental programmes He Kākano and Te Kotahitanga. She has produced and communicated research results and implications to academic and non-academic audiences through numerous presentations, reports, and peer-reviewed academic publications.

Letitia Goldsmith



Letitia brings previous experience coordinating educational pastoral support programmes in tertiary settings, managing a variety of portfolios, including work experience, programme coordination, pastoral coordination, external engagement and transition to employment. For the past four years Letitia has worked as a researcher for Ihi Research supporting data collecting, analysis and project management. She has worked on project teams with an education focus including school based evaluations and community initiatives to support young people.

Sparklers

Sparklers is a digital classroom resource bank of wellbeing activities for students in Years 1-8. Sparklers' activities range from 10-minutes to an hour and cover a variety of different activities grouped under the headings: showing kindness; gratitude and giving; being ourselves; feeling good; balancing energy; managing emotions; using our senses; noticing our world; and, warm-up activities.

After eight-weeks of implementation

- ▶ Teachers observed and reported small changes in focus group student attitudes and behaviour.

32%

INCREASE in students using prosocial strategies to regulate their emotions.

32%

INCREASE in students using prosocial strategies to resolve difficulties with other students.

- ▶ Internal school survey evidenced positive shift in school climate.
- ▶ Reduction in school behaviour incidences over the period.
- ▶ Students reported that they enjoyed the activities.

After two years of implementation

- ▶ Reduction in high level behaviours across the school.
- ▶ Teachers reported improved social and emotional literacy amongst students.
- ▶ Teachers who used Sparklers consistently reported improved classroom climate.
- ▶ Teachers experienced positive outcomes from participating.
- ▶ Student social and emotional literacy had improved over time.

Survey data

137

TEACHERS,
school leaders and/or
support staff participated

100%

AGREE
Sparklers has a positive
impact for students



99%

use Sparklers to support the
development of social and
emotional learning for students

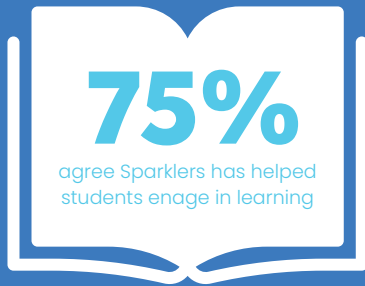
93%

agree Sparklers has
helped create an
**EMOTIONALLY
SUPPORTING**
classroom



75%

agree Sparklers has helped
students engage in learning



91%

agree Sparklers has
improved the
**EMOTIONAL
CLIMATE**
in the classroom

90%

AGREE
Sparklers has reduced
bystander behaviours

100%

AGREE
Sparklers provides an
opportunity for students
to share their feelings in
a supported activity.

Findings

Sparklers can be used easily, it is complementary to other programmes, supports social skill learning and emotional regulation in a fun way that students can relate to. Implementing Sparklers in classrooms has a positive impact for student social and emotional learning, including raising self-awareness, self-management, social awareness, and relationship skills. Teachers report that modelling the Sparklers' strategies, particularly breathing, can support their own emotional regulation and set a positive example for students. Sparklers supports social and emotional learning, reduces antisocial behaviour, increases social support and 'connectedness' for students within the school. The evidence indicates that implementing Sparklers regularly could reduce bullying. Consistency is the key to being effective.



Sparklers

sparklers.org.nz