

The background of the cover is a vibrant watercolor wash in shades of purple, blue, green, and yellow. A solid red rectangular box is positioned in the upper right quadrant, containing the report's title and subtitle.

FINAL RESEARCH REPORT

Wellbeing in Primary Schools through Positive Education

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- the important contribution of the Upper Hunter schools and communities to the success of this research project; and
- the contribution of the Principals, staff (especially the positive education coordinators), students, and parents from the participating primary schools who have made this research possible.

The research team would also like to acknowledge the significant contribution of Dr Helen McGrath, whose advice has helped guide this project.

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Foreword

Upper Hunter *Where There's a Will* is a charity established in the Upper Hunter in 2016 to address significant mental health issues facing the community. We aim to create a mentally fit Upper Hunter community, bringing colour to lives through positive education, student leadership and community engagement initiatives. By supporting our schools to implement positive education initiatives, we can embed resilience and wellbeing into school culture and potentially change the trajectory of mental illness in the Upper Hunter.

Where There's a Will has been privileged to partner with the PROSPER research team led by Professor Toni Noble, from the Institute for Positive Psychology and Education (IPPE) at the Australian Catholic University (ACU). Through this partnership, research has been undertaken across five Upper Hunter schools to assist students in the region learn and develop the skills of wellbeing and resilience from the early years of education.

With much gratitude, we thank the principal investigator Professor Alex Yeung, Professor Rhonda Craven, Professor Toni Noble, PhD candidate Rose Pennington, the entire research team at ACU, the teaching and support staff of the Upper Hunter's participating schools, parents, carers and students and many others who have contributed to making this research project a reality.

This project has been a testament to the proverb *"It takes a village to raise a child"*.

Working together we can create a better future, for ourselves, our children and our community.

Jane Callinan
Chairperson
Where There's A Will

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1. Executive Summary

1.1. THE RESEARCH PROJECT

This project titled PROSPER: Wellbeing in Primary Schools through Positive Education is a \$50,000 research partnership jointly funded by the *Australian Catholic University* (ACU) and the community charity *Where There's A Will* based in the Upper Hunter (UH) rural region of NSW. The research was conducted by researchers from the Institute for Positive Psychology and Education (IPPE) in the Faculty of Health Sciences at ACU. IPPE brings together the world's leading researchers and theorists to conduct rigorous research into understanding how people can flourish and thrive.

1.2. SIGNIFICANCE

This pilot project is an important initiative by WTAW in funding research to support the charity's vision to improve the wellbeing and resilience of young children in schools in the UH. Applied research in schools is crucial to finding solutions to the mental health issues in young people today. The significance of this positive education project is that it is a unique grassroots initiative for the benefit of primary aged children in their local schools in the Upper Hunter community. The research evidence provided by this project is important for the many community supporters of WTAW who have provided funding for this project. The benefits are that having good research evidence can provide reliable and valid findings as well as raise important questions to improve our practice in positive education. This is designed to not only inform the participating school communities, but also to inform other schools in the UH and beyond.

1.3. PURPOSE

The goal of positive education is to help all students to thrive and flourish both academically and in terms of their happiness and wellbeing. The purpose of this research is to explore the crucial factors that contribute to students' mental health and wellbeing through the implementation of a positive education social-emotional learning program (Bounce Back) in five UH primary schools. Bounce Back is the first published positive education program globally and is now in its third edition. This project, using the Bounce Back program as a basis, was designed to serve as the basis of a larger funded grant application involving more schools.

1.4. DESIGN

The research included the design and validation of a new measure for student wellbeing based on the PROSPER framework for wellbeing that underpins the Bounce Back program. PROSPER is defined as the ability to grow strong and healthy, to thrive and flourish. PROSPER is an acronym for seven evidence-based elements for wellbeing—**P**ositivity, **R**elationships, **O**utcomes, **S**trengths, **P**urpose, **E**ngagement, and **R**esilience (Noble & McGrath, 2015). This collaborative research used mixed methods involving quantitative and qualitative approaches. The quantitative component aimed at identifying and validating the major factors indicative of success in promoting student and teacher wellbeing in the primary classroom. A pre-post design enabled the delineation of the relations of critical factors for best practice in a school setting implementing a positive education curriculum. The qualitative component was designed to identify what worked in the implementation of the wellbeing and resilience program to enhance the wellbeing of a school community and how and why it worked. The mixed-method approach enabled strong cross-validation and triangulation of findings for future scaling up of the intervention.

1.5. RESEARCH QUESTIONS (RQS) AND FINDINGS

1.5.1. RQ1. CAN ELEMENTS OF THE PROSPER FRAMEWORK BE MEASURED?

The student survey instrument developed for this project yielded five distinct factors based on the PROSPER framework. The five distinct factors are Positivity, Relationships, Strengths, Resilience and Outcomes/Purpose/Engagement.

The three factors of Outcomes/Purpose and Engagement merged as one factor.

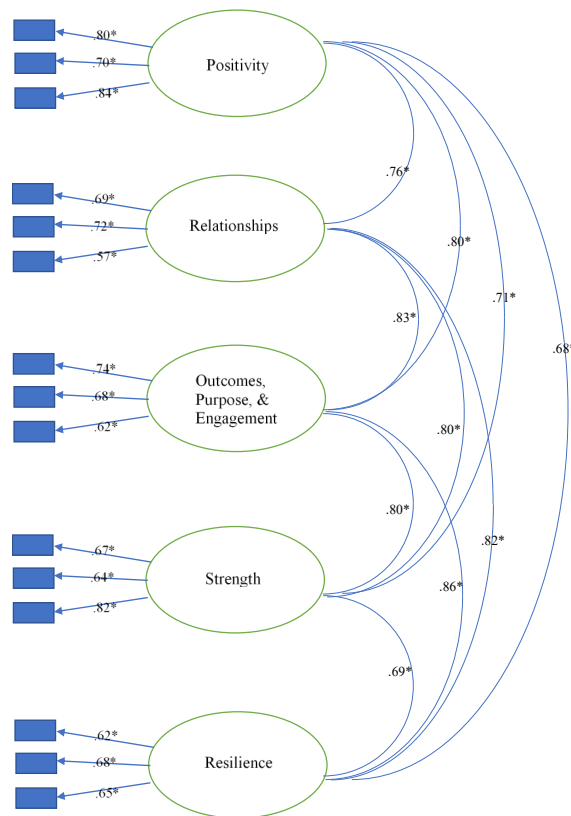


Figure 1. CFA model of PROSPER factors
Note: * $p < .05$.

1.5.2. RQ2. HOW DO THE PROSPER ELEMENTS CORRELATE WITH OTHER GENERAL AND ACADEMIC WELLBEING MEASURES?

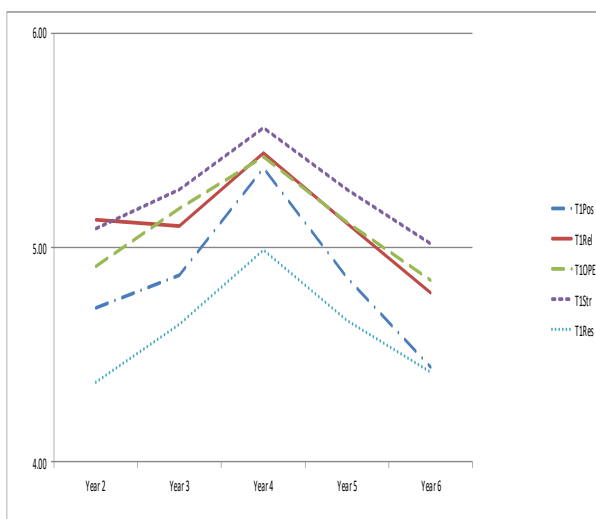
These five PROSPER factors correlate positively with Mental Wellbeing, Self-worth and Academic Buoyancy. The five factors correlate negatively with Disengagement. Positivity and Resilience (especially Positivity) are more positively associated with Andrew Martin's (2008) concept of 'Academic Buoyancy'. Outcomes, Purpose, and Engagement, being more academically focused factors, are more negatively associated with Disengagement. Hence the PROSPER instrument is useful for studying both general and academic wellbeing interventions.

1.5.3. RQ3. WHAT IS THE CRITICAL YEAR LEVEL FOR AN INTERVENTION TO MAINTAIN PRIMARY STUDENTS' SUBJECTIVE WELLBEING?

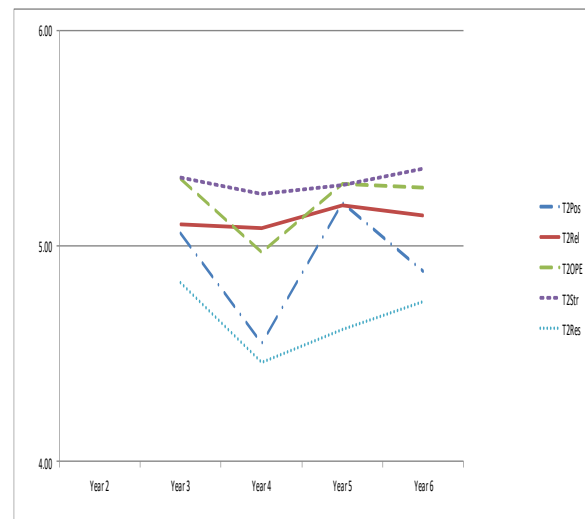
At Time 1, prior to the introduction of the Bounce Back program, the data indicated that there was some decline in Year 5 and 6, in all of the skills related to resilience and wellbeing as measured by the PROSPER student survey. This highlights the importance of teaching these skills from the early years of schooling.

At Time 2, when students were tested in the following year after the long 8-week Christmas break, the Year 3 students (now in Year 4) did not seem to be as responsive to the Bounce Back intervention as the older years. Arguably this further indicates the importance of intervention in the early school years prior to Year 4.

The data also implied that younger primary aged children need to be constantly reminded of the key messages in a wellbeing/resilience program and provided with repeated opportunities to practise the skills and understandings to the point where they become 'habitual' and positively influence their wellbeing and resilience.



Time 1 (before intervention)



Time 2 (4 months after intervention)

1.5.4. RQ4. CAN A SHORT (10-WEEK) BOUNCE BACK INTERVENTION, USING THE PROSPER FRAMEWORK, MAINTAIN STUDENTS' SUBJECTIVE WELLBEING 4 MONTHS AFTER INTERVENTION?

The 10-week Bounce Back program was effective in maintaining students' subjective wellbeing even 4 months after the intervention (*and even with an additional 8-week summer break in between*). However, the research findings suggest that a 10-week program may not be strong enough to significantly improve subject wellbeing as there was no statistical difference across the year levels, and there was no statistical difference between Time 1 and Time 2 wellbeing measures. Some measures improved over time while some others dropped, but neither trend was noteworthy. These data indicate the importance of sustaining the implementation of the program for a longer period to further maintain or gain improvements in student wellbeing.

1.5.5. RQ5. TO WHAT EXTENT DO TEACHERS PERCEIVE A DIFFERENCE IN BEHAVIOUR AND SOCIAL-EMOTIONAL SKILLS BETWEEN THE BEGINNING AND END OF THE INTERVENTION?

Ten themes were identified in the four focus group discussions with teachers in groups ranging from 3 to 10. These ten themes can be classified into three higher order categories: (1) student gains, (2) community gains, and (3) implementation factors.

Student gains included three themes regarding teachers' observations of an increase in (i) students' *coping strategies*, (ii) in students' *transfer of skills* (i.e., students applying social-emotional skills in different settings, and (iii) students' *greater engagement* in class.

Community gains evolved from the implementation of the program across the whole school yielding four themes: (i) *a common language* of wellbeing and resilience among students, teachers, and parents; (ii) *safety* (i.e., an increase in feelings of safety, especially psychological safety), (iii) an increase in *teacher wellbeing*, and (iv) *cultural change*.

Implementation factors. Three themes emerged in regard to implementation: (i) *upskilling of staff* (i.e., an increase in teachers' skills to teach positive education, (ii) *use of children's literature* in the program facilitates the teaching of the program's key messages, and (iii) *differences with age* (i.e., teachers found it was easier to gain student development in wellbeing and resilience with younger grades).

The following table includes quotations to illustrate each theme.

Table 1: Student Gains

THEMES	EXAMPLES
Coping Strategies	<p>"One of the big things I've noticed is building the resilience in the kids.... giving them strategies"</p> <p>"It's giving them strategies to deal with life really. And being considerate of others."</p>
Transfer of Skills	<p>"Year 2s are now much better at working at and solving friendship problems"</p> <p>"It's good cause the kids are actually using it (Bounce Back skills) throughout other subjects as well"</p>
Enhanced Engagement	<p>"There's been a big difference in my classroom. I think the students are more engaged. They're more friendly to each other and it seems like a more positive environment."</p> <p>"In all our conversations, everybody's far more far more engaged and interested in what others have to say."</p>

Table 2: Community Gains

THEMES	EXAMPLES
A common language	<p>"It's having the common language to talk about situations in the playground.... all the grades are doing it and everyone understands"</p> <p>"The language is there. The language is there for the parents, it's there for the children."</p> <p>"I like that it's giving the children a new language to use, I guess, of positive education."</p>
Feelings of Safety	<p>"It was a safe forum for everybody to tell the others how they cope with things, how they feel about things, how they feel when that happens, how they would deal with that if that happened."</p>
Cultural change	<p>"It is starting to be immersed, even in the culture."</p> <p>"The way we now approach wellbeing is very unified. And I think Bounce Back has helped with that."</p>
Teacher wellbeing	<p>"I put a lot of emphasis on getting everything right. It's all well and good to say it's okay for you not to be perfect but to recognise that no one else is perfect either has definitely helped my wellbeing this year."</p> <p>"[I'm able] to walk in and say "Look, I'm actually feeling a bit ordinary" or "I need a bit of help" or "I'm a bit stressed." Whereas before I think it just would have been a bit more secretive."</p>

Table 3: Implementation Factors

THEMES	EXAMPLES
Upskilling of staff	<p>“It gives us tools, when we are dealing with situations to make sure we are using the same language”</p> <p>“It’s explicit and I think that’s what made it so engaging for the students, that it was so succinct, the lessons and it was something you could go pick up and run with”</p>
Using children’s literature	<p>“It would be really difficult, I think, for them to get their heads around some of these situations that we ask them to consider. So using books is perfect.”</p> <p>“The books have been really good when we’ve got them”</p>
Difference with age	<p>“When you’re looking at stage two and three you’re looking at more ingrained ways of communicating and interacting in your social group whereas kindergarten is a bit more flexible.”</p>

1.6. RECOMMENDATIONS

Based on the research findings, the following recommendations are made:

1. Provide ‘take home’ resources for teachers to give students prior to a long break from lessons to help early primary students to maintain, remember and practise the key SEL skills for wellbeing and resilience.
2. Provide an avenue for direct communication with all teachers from the positive education facilitators and researchers to maintain smooth and prompt staff support for the project.
3. Introduce processes for more direct communication on a social media network site for teachers to share news and materials across schools and within their school community. Similarly, a Bounce Back community social network across the participating schools could also be established for students and parents.
4. Keep an online log book that is simple for teachers to use to indicate what Bounce Back lesson they taught each week. This will ensure fidelity of intervention.
5. Explore better ways to gain a high number of data returns from all stakeholders (teachers, parents, and students). A short video where a researcher and a representative from WTAW explains to parents the importance of the research and the potential benefits for every child and family may be helpful.
6. Make a video to explain to students the purpose of the survey, and the procedures for filling in the survey to help gain student engagement and support for their participation and commitment to honest responses to the online survey.
7. Given the finding that the use of books was an important part of the intervention, ensure that the recommended literature is easily accessed by all teachers, and that all resources are age appropriate to ensure rich and meaningful conversations.

1.7. FUTURE DIRECTIONS FOR ONGOING COMMUNITY ENGAGEMENT

This evaluation reflects the early stages of implementing and evaluating the Bounce Back project based on the PROSPER framework in the five participating schools. It is predicted that the benefits of this initiative will continue to grow as the teachers become more familiar with the program and the key messages continue to be embedded in whole school practices and classroom learning processes and curriculum. Some suggestions to help maintain and expand the key Bounce Back messages on wellbeing and resilience in the broader Upper Hunter community are:

- The development of a short video clip that explains the project to the broader Upper Hunter community to be presented to the Local Council and other community groups.
- Students from the participating schools prepare a conference/expo of the Bounce Back messages for the Upper Hunter community
- Students (in groups) teach some of the Bounce Back concepts to community groups such as parents, senior citizens, sports teams.
- Students interview, write up and publish locally their interviews with community members such as older citizens about times when they have coped with difficult times
- Conduct evenings or weekend workshops for parents and other interested community members.
- Schools present a school concert or musical on the Bounce Back themes for the whole school and local community

1.8 CONCLUSION

Overall, the findings demonstrate the importance of teaching the skills for wellbeing and resilience from the early primary years. The Bounce Back project based on the PROSPER framework provided teachers with a positive education curriculum to teach their students in all primary grades the specific skills and understandings that maintained their students' wellbeing and resilience. This maintenance was achieved even after only 10 weeks of intervention and a long holiday break. This intervention is in its infancy, but from the strength of these early findings, we may envisage that a continuation of the weekly Bounce Back lessons will help to maintain or even improve their students' healthy levels of wellbeing and resilience in the long term, and hopefully for life. When teachers become more familiar with the key mental health and wellbeing messages taught through the Bounce Back curriculum, they will find many opportunities to teach these skills across the school curriculum and ways to more frequently embed the key skills and understandings in other areas of school life. By teaching these wellbeing skills, the teachers themselves will also benefit from an enhanced wellbeing and resilience.

This research enhances our understanding of the importance of the early school years in building student wellbeing and resilience. It has provided evidence that the new PROSPER instrument is useful for studying both social-emotional and academic wellbeing interventions to help us better understand how to create effective school practices to help children to thrive and flourish. It also provides feedback on the usefulness of the chosen positive education curriculum (Bounce Back) in enhancing wellbeing and resilience. This research has also raised issues as to how to better support the teachers so the implementation may be improved for optimal outcomes. Researchers and practitioners using other positive education programs may consider using a guiding framework such as PROSPER described in this report for measuring and implementing both school-related and generic facets of students' wellbeing for best effects.

PROSPER: Wellbeing in Primary Schools Through Positive Education

2. Final Research Report

2.1. Background

2.1.1 COLLABORATION

This collaborative project, titled **PROSPER: Wellbeing in Primary Schools through Positive Education** is a \$50,000 research partnership funded by the *Australian Catholic University (ACU)* and the community charity *Where There's A Will* based in the Upper Hunter rural region of NSW. The research was conducted by researchers from the Institute for Positive Psychology and Education in the Faculty of Health Sciences at ACU.

2.1.2 RATIONALE

The rationale for this research is to improve the mental health and wellbeing of primary school children in five schools in the Upper Hunter region of NSW. The major partner in this initiative is Where There's A Will (WTAW) charity established by Pauline Carrigan. This research is based on the premise that early intervention in the primary school years will help prevent later mental health issues emerging in adolescence. There is an urgent need for an effective social-emotional program to build resilience and reduce mental problems in young children (Pennington, 2016; Pennington, Yeung, Dillon, & Noble, 2018), and to develop a theoretical framework that is empirically tested to be able to measure crucial drivers of childhood resilience and guide directions for intervention in the early primary years.

Schools need an effective social-emotional program to build resilience and reduce mental problems in young children. In this research PROSPER was used as a theoretical framework to guide intervention directions. This research provided an empirical test of the critical components within the PROSPER framework designed to enhance student wellbeing and resilience, using the Bounce Back program. The research design is structured to measure the patterns of the PROSPER wellbeing components across year levels, and to explore any change in such patterns over two school terms that can be attributed to the implementation of the Bounce Back program in five schools.

2.2. Significance

This pilot project is an important initiative by WTAW in funding research to support the charity's vision to improve the wellbeing and resilience of young children in schools in the UH. All children attend school so applied research in our schools is crucial to finding solutions to the mental health issues in young people today. The UH is a very diverse heterogeneous rural community and that diversity is reflected in the five participating schools. The significance of this positive education project is that it is a unique grassroots initiative that is being funded by the local community for the benefit of their primary aged children in their local schools. The research evidence provided by this project is important for the many community supporters of WTAW who have provided funding for this project and may also inform other projects initiated by WTAW. The benefits are that having good research evidence can provide reliable and valid findings as well as raise important questions to improve our practice in positive education. This is designed to not only inform the participating school communities, but also to inform other schools in the UH and beyond.

2.3. Purpose

The ultimate goal of positive education is to help all students to thrive and flourish both academically and in terms of their happiness and wellbeing (Pennington, Yeung, Dillon, & Noble, 2018). The purpose of this research is to explore the crucial factors that contribute to students' mental health and wellbeing through the implementation of a positive education social-emotional learning program (Bounce Back) in five UH primary schools. Bounce Back is the first published positive education program globally and is now in its third edition. This pilot project, using the Bounce Back program as a basis, was designed to serve as the basis of a larger funded grant application involving more schools.

2.4. Enhancing Wellbeing and Resilience through Positive Education

2.4.1. POSITIVE EDUCATION

Positive education is defined as the integration of the core principles of positive psychology with the evidence-informed school structures, practices and programs that enhance both students' wellbeing and academic achievement. The aim of positive education aligns with the vision of WTAW to enable not only students but all members of a school community to thrive, succeed, and prosper (Noble & McGrath, 2015, McGrath & Noble, 2011).

2.4.2. THE PROSPER FRAMEWORK FOR POSITIVE EDUCATION

The PROSPER framework is designed as an organiser for seven evidence-based elements for student wellbeing. The term 'to prosper' is defined as the capacity to grow strong, healthy, and to thrive and flourish. By applying the PROSPER framework in the school setting, educators are encouraged to consider what school and classroom practices can enhance student wellbeing in relation to the seven PROSPER elements for wellbeing and to build safe and supportive school communities so all children flourish. The PROSPER framework represents the integration of the principles from positive psychology with the principles of effective teaching and learning derived from the literature of educational and psychological research and practice.

2.4.3. THE PROSPER FRAMEWORK IN THE SCHOOL CONTEXT

The following outlines the seven components of the PROSPER framework.

Positivity for students means teaching the social and emotional learning (SEL) skills for boosting positive emotions and a sense of optimism and creating the classroom and school conditions where children experience positive emotions. Positive emotions include feeling safe, a sense of belonging, feeling interested, content and cheerful. Enhancing positivity also involves developing a capacity for gratitude and appreciation.

Relationships for students means learning the prosocial values and SEL skills for developing positive relationships with their peers and teachers and providing a positive, supportive, and inclusive school environment.

Outcomes involve helping students to take responsibility for their learning (setting and making progress toward goals, understanding their academic success depends on not just ability but also hard work and effort, being persistent when faced with challenges, and having a 'growth mindset'). These SEL skills help students develop a sense of competence and achievement in terms of their learning capabilities.

Strengths involve developing students' self-knowledge about their character strengths and ability strengths and understanding how to apply and extend these strengths in different contexts. It also includes valuing classmates and others' different strengths.

Purpose in the school context refers to believing that what one is learning at school is valuable and important for their future and feeling connected to something greater than oneself. There is also a focus on looking for ways that students can be of service to their class/ school community, to the general community and to people in need of care and support.

Engagement refers to students' psychological connection to learning activities and to school (e.g., feeling absorbed, connected, interested, and engaged in school learning and in school life). There is also a focus on effective and evidence-informed teaching strategies for enhancing student engagement in learning.

Resilience includes having the capacity to 'bounce back' after setbacks, mistakes and difficulties and being courageous when faced with challenging situations. There is also a focus on explicitly teaching coping skills and implementing support structures.

All seven components of the PROSPER framework incorporate devices that support teachers' pedagogy to explicitly teach SEL skills and improve school culture. This framework forms the foundation of the SEL program known as Bounce Back (Noble & McGrath, 2015) that was implemented in the five participating schools.

2.4.4. BENEFITS OF SOCIAL AND EMOTIONAL LEARNING

Reviews of research consistently show that SEL programs have a wide range of positive effects. A large scale meta-analysis of the outcomes from 213 interventions involving over 270,000 students in kindergarten through 12th grade reported significant improvements in students' wellbeing, behaviour as well as an 11% gain in academic achievement. (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Similar positive outcomes were found in the Australian Government's *KidsMatter* pilot conducted in 101 primary schools (KidsMatter Program Guide, 2014). The impact was especially apparent for students who were rated as having higher levels of mental health difficulties at the start of the trial (Slee et al., 2009). Academic benefits as well as social-emotional (SEL) health and wellbeing were found for students in schools when the whole school was involved in the sustained implementation of a SEL program. The difference between students in high- and low-implementing schools was found to be equivalent to a

difference in academic performance of up to 6 months of schooling based on NAPLAN results (Dix, Slee, Lawson, & Keeves, 2012). The Bounce Back program was the most popular SEL program in the *KidsMatter* study, chosen by 64% of schools who chose a whole school program.

This research project employs the Bounce Back program as the positive education curriculum to enhance student wellbeing, resilience, and social-emotional learning. The overarching purpose of this research was to empirically test the PROSPER framework for the Bounce Back intervention, and to develop a PROSPER measuring instrument to identify the potentially critical time for effective intervention in primary schools to develop and maintain students' psychological and academic wellbeing.

2.5 Research Design

The research included the design and validation of a new measure for student wellbeing based on the PROSPER framework for wellbeing that underpins the Bounce Back program. PROSPER is an acronym for seven evidence-based elements for wellbeing—**P**ositivity, **R**elationships, **O**utcomes, **S**trengths, **P**urpose, **E**ngagement, and **R**esilience (Noble & McGrath, 2015). The findings are expected to have significant practical implications for successfully rolling out the intervention to various educational settings and significant theoretical implications for student wellbeing and positive education research.

The collaborative research used mixed methods involving quantitative and qualitative approaches. The quantitative component aimed at identifying and validating the major factors indicative of success in promoting student and teacher wellbeing in the primary classroom. A pre-post design enabled the delineation of the relations of critical factors for best practice in a school setting implementing a positive education curriculum. The qualitative component was designed to identify what worked in the implementation of the wellbeing and resilience program to enhance the wellbeing of a school community and how and why it worked. The mixed-method approach enabled strong cross-validation and triangulation of findings for future scaling up of the intervention.

2.5.1. QUALITATIVE COMPONENT

Four focus groups were conducted with teachers in four of the five participating schools. The teacher focus groups were mixed gender and ranged from four to ten participants. Their teaching experience ranged from 1 to 30 years. The purpose of the focus groups was to investigate the effects of the SEL program Bounce Back and to identify what worked, how it worked, and what could be improved.

2.5.2. QUANTITATIVE COMPONENT

The quantitative component of the research involved students and teachers from five schools. The initial student sample was a total of 405 at Time 1, and 19 teachers in the first year of the study (52% boys, mean age = 9.88, $SD = 1.27$). The sample for time 2 (the following year) included 192 students and 19 teachers. The total sample with the same individuals matched across Time 1 and Time 2 (Student $N=192$; Teacher $N=19$) provided longitudinal data for identifying some features of effects due to the program and for statistically modelling. However, the quantitative data would not be robust enough to accurately identify intervention effect, given that there was no control group for direct comparison in the participating schools engaged in the intervention.

2.6. Research Questions

The study attempted to answer the following research questions (RQs):

RQ1. Can elements of the PROSPER framework be measured?

RQ2. How do the PROSPER elements correlate with other general and academic wellbeing measures?

RQ3. What is the critical year level for an intervention to maintain primary students' subjective wellbeing?

RQ4. Can a short (10-week) Bounce Back intervention, using the PROSPER framework, maintain students' subjective wellbeing 4 months after intervention?

RQ5. To what extent do teachers perceive a difference in behaviour and social-emotional skills between the beginning and end of the intervention?

2.7. Methods

The research design was mixed-method, employing qualitative and quantitative research methodology. The qualitative component of the research comprised focus group interviews with teachers in the schools. The quantitative component comprised a survey study with the students from Year 2 to Year 6 and another with the teachers of these students.

2.7.1. PARTICIPANTS

Schools

Six schools participated in the data collection at Time one prior to intervention and staff training in the Bounce Back program. Three of the schools were State primary schools including a small one teacher school. Three of the schools were Catholic primary schools. The small one-teacher school was withdrawn from data collection at Time two as the principal/teacher changed prior to implementation of the program. This one-teacher school still received the resources and the new principal/teacher planned to teach the program in the fourth school term.

Teachers

All teachers in the five schools were invited to participate. All teachers participated in a one-day training on the Bounce Back program which included guidelines on implementing the program. Each school also appointed a Positive Education coordinator to facilitate the implementation of the program across the school. All coordinators received an extra day's training to help them in this role. Teachers' consent was obtained in compliance with ethics requirements of Australian Catholic University, the NSW Department of Education and the Catholic Schools Office in the Maitland-Newcastle Diocese.

Students

All students from Year 2 to Year 6 in all the participating schools were invited to participate. Consent was obtained from their parents before they completed a survey online. They were asked to indicate assent before they were allowed to proceed to the first survey item. All procedures complied with ethics requirements of Australian Catholic University, the NSW Department of Education and the Catholic Schools Office in the Maitland-Newcastle Diocese.

2.7.2. MATERIALS AND PROCEDURES

Intervention material

All classroom teachers were given their own copy of the Bounce Back Handbook and Classroom Resources (McGrath & Noble 2011) that was the appropriate level for their class. Each teacher was expected to teach one Bounce Back lesson per week. They were given a scope and sequence chart which indicated which lesson from the Bounce Back curriculum units they were expected to teach.

The Bounce Back intervention takes a positive education approach to wellbeing, resilience and social-emotional learning. It is a whole-school program that provides strategies and materials at three primary school levels: Kindergarten to Grade 2, Grades 3-4 and Grades 5-6. Each level incorporates the same nine curriculum units with age appropriate activities using children's literature and evidence-based pedagogy. The nine units are:

- **Core Values:** honesty, fairness, acceptance of differences and responsibility, inclusion, kindness, cooperation, friendliness, being respectful to others and self-respect
- **People Bouncing Back:** skills and attitudes for coping and being resilient
- **Courage:** finding courage in both everyday life and difficult circumstances
- **Looking on the Bright Side:** optimistic thinking and positivity skills
- **Emotions:** amplifying positive emotions and managing uncomfortable emotions
- **Relationships:** social skills for making & keeping friends and managing conflict
- **Humour:** using humour to connect with others, to cope better & to understand differences between helpful and harmful humour
- **No Bullying:** skills for understanding, countering and managing bullying situations; skills for supporting others who are being bullied
- **Success:** skills that lead to successful goal achievement (goal setting, growth mindset, overcoming obstacles); identifying your own positive character strengths and ability strengths.

The research was a longitudinal study. Data were collected at two time-points 9 months apart, with a 10-week Bounce Back intervention in between.

For the quantitative component, valid data were obtained from 206 students and 19 teachers at Time 1. Like any longitudinal research, the sample was reduced substantially at Time 2. Reasons include loss of Year 6 students at Time 1 who left primary school at Time 2, difficulty of matching the same participant across time points, attrition, and non-participation at either of the time points. Hence in reporting results, different sample sizes may be used for different statistical analyses.

Focus group interviews

Four focus groups were conducted with teachers in four of the five participating schools. The focus groups were mixed gender and ranged from three to ten participants. The focus group interviews were conducted to discuss the teachers' understanding of the program, and the effects of the intervention that they perceived on student wellbeing. The interviewer audio-recorded the interviews that ran for approximately thirty minutes and asked a series of open-ended questions to the group. Participants understood that they did not have to respond to questions if they did not want to, and they understood that they could withdraw at any time. All procedures complied with ethics requirements of Australian Catholic University, the NSW Department of

Education and the Catholic Schools Office in the Maitland-Newcastle Diocese and all participants signed consent forms.

Survey instrument

The students and teacher surveys were specially designed for the purpose of this research. Apart from background information including age, gender, class, language background, etc, survey items included psychological and academic wellbeing measures.

The PROSPER measures were newly designed based on the guiding framework for the Bounce Back interventions. Other measures were adapted from existing validated instruments.

The PROSPER measures included items to derive seven factors, each representing the initial letter of the factor in the acronym (Positivity, Relationship, Outcomes, Strength, Purpose, Engagement, and Resilience). Each factor used three to four items (see Table 1).

From a positive education perspective, these PROSPER measures were correlated to general psychological wellbeing and academic wellbeing variables. General psychological wellbeing was measured by the short form of the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS; Tennant et al., 2007) using seven items, and self-worth from Marsh's (1990) Self Description Questionnaire (SDQ; 4 items). Specific academic wellbeing was measured by Martin's (2008) Academic Buoyancy Scale (4 items), and Martin's (2003) Disengagement subscale of his Student Motivation Scale (4 items).

The teacher survey was designed so that they could rate the social and emotional skills of their students before and after the intervention, as well as their own wellbeing, using the Warwick-Edinburgh Wellbeing Scale.

Table 1: Measures Used in the Survey

MEASURE	SAMPLE ITEM	NO. OF ITEMS	RELIABILITY
Positivity	I enjoy school	4	.78
Relationships	I get along well with lots of other kids	4	.71
Outcomes	I manage my time so I can complete my homework	4	.74
Strength	I know what I am good at	4	.75
Purpose	I am learning things at school that will give me a better future	4	.74
Engagement	When I am interested in my work, I will go on and on	4	.72
Resilience	If I am worried about something, I try to find ways to solve the problem	4	.70
WEMWBS	I've been feeling useful	7	.89
Self-Worth	Overall, I have a lot to be proud of	4	.93
Academic buoyancy	I don't let difficulties affect my confidence	4	.81
Disengagement	I've pretty much given up being interested in school	4	.90

Analysis

The quantitative component of the study focused on testing the psychometric properties of the PROSPER instrument. Reliability estimates were conducted for each theoretically derived measure. Confirmatory factor analysis was used to test the ability of the designed items to yield the expected factors with the current student sample. These PROSPER factors were then correlated with a range of other variables, including psychological wellbeing in general terms and academic wellbeing that is specific for the student sample in school settings. Further analyses focused on patterns rather than on a rigorous test of intervention effects, as there was no control group in the pre-test / post-test design to accurately delineate significant differences between experimental and control groups. The qualitative data were transcribed and analysed. The purpose was to understand the intricacies of the classroom environment and students' social and emotional skills that might not be picked up by the survey items, such as real and perceived reactions to challenges, body language etc.

2.8. Research Findings

2.8.1. RQ1. CAN ELEMENTS OF THE PROSPER FRAMEWORK BE MEASURED?

To answer this research question, confirmatory factor analysis (CFA) was conducted using the sample of 405 students, followed by an examination of the reliability of each of the factors yielded from the CFA.

A 7-factor model (Model 1) using all 28 items yielded an acceptable model fit (model fit indices with comparative fit index (CFI) and Tucker-Lewis index (TLI) $> .90$ and Root mean square error of approximation (RMSEA) $< .08$ are generally considered to be acceptable). However, three of these factors are so highly correlated with each other that they are not empirically separable from each other (a correlation between two variables $> .90$ means they cannot be treated as two distinct constructs).

Instead of a 7-factor model, a 5-factor model (Model 2) with reduced items for each factor (three each), and treating the items of Outcomes, Purpose, and Engagement (one item from each) as a single factor, yielded a similarly acceptable fit while all inter-factor correlations are below $.90$ so there are five distinct constructs (see correlations in Table 2).

The reliability estimates for each of the five constructs were also acceptable (an alpha value $> .60$ is generally deemed to be acceptable for a small number of items in the factor).

That is, while the PROSPER conceptualisation stands and can be measured, the empirical measurement model is better represented by a 5-factor structural model. This result of the 5-factor model is presented in Figure 1.

The instrument generated from this study is able to measure five distinct factors based on the PROSPER framework. The five distinct factors are Positivity, Relationships, Strengths, Resilience and Outcomes/Purpose/Engagement. The three factors of Outcomes/Purpose and Engagement merged as one factor.

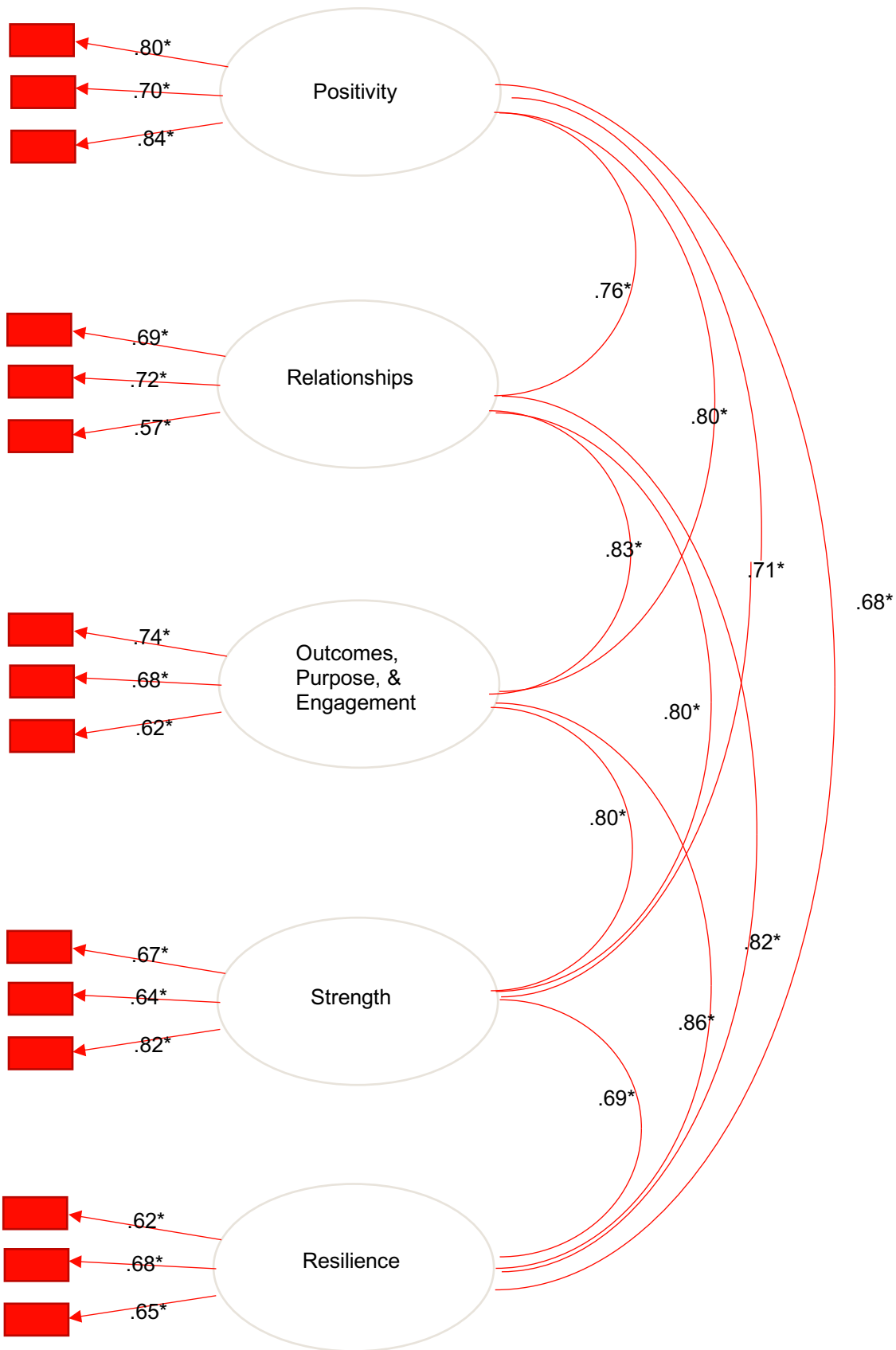


Figure 1. CFA model of PROSPER factors
 Note: * $p < .05$.

2.8.2. RQ2. HOW DO THE PROSPER ELEMENTS CORRELATE WITH OTHER GENERAL AND ACADEMIC WELLBEING MEASURES?

Based on Model 2, a third CFA model (Model 3) put together the five PROSPER factors and four other factors that are external to the PROSPER conceptualisation. These factors were two general psychological wellbeing constructs (WEMWBS and self-esteem), and academic-specific wellbeing constructs (academic buoyancy and disengagement). The model had an acceptable model fit. Table 2 shows the correlations of these constructs derived from Model 3.

Table 2. Latent Construct Correlations (Model 3)

	POS	REL	OPE	STR	RESIL	WB	WORTH	BUOY	DISENG
Relationships	.76								
Out, Pur, & Eng	.79	.83							
Strength	.71	.80	.80						
Resilience	.68	.82	.86	.69					
Mental Wellbeing	.68	.84	.70	.63	.68				
Self-worth	.53	.68	.46	.49	.55	.80			
Academic Buoyancy	.81	.60	.57	.49	.74	.72	.67		
Disengagement	-.52	-.44	-.56	-.32	-.30	-.21	-.16	-.26	

Note: $N=405$. All correlation coefficients are significant at $p<.05$ level. OPE = a composite of Outcomes, Purpose, and Engagement.

The findings may be summarised as follows:

1. As shown in Table 2, all the PROSPER factors are positively correlated with the Mental Wellbeing Scale (.68, .84, .70, .63, and .68, respectively) supporting the PROSPER factors being wellbeing measures from a multidimensional perspective.
2. Positivity in the school setting correlates positively with both general and academic-specific external variables, but the most salient is academic buoyancy (.81).
3. Relationships are more highly correlated with the general variables of Mental Wellbeing and Self-worth (.84 and .68, respectively).
4. The composite of Outcomes, Purpose, and Engagement (which was strongly academically oriented) was highly correlated with the positive academic-specific variables of academic buoyancy (.57) while negatively correlated with disengagement, a negative variable (-.56).

5. Resilience was highly correlated with academic buoyancy (.74), as they shared conceptually common characteristics.

Overall, the correlations of the PROSPER factors with external variables, non-academic and academic, are logical and reasonable. This finding provides strong support for the applicability of the PROSPER measure in a school setting where academic and non-academic wellbeing features are equally salient. The multidimensional nature of the measurement based on the PROSPER framework has the advantage of enabling educators to gear their educational interventions to target specific wellbeing outcomes, academic or non-academic in nature.

The PROSPER factors correlate logically with two general wellbeing measures (positively with Mental Wellbeing and Self-worth) and two academic wellbeing measures (positively with Academic Buoyancy; negatively with Disengagement).

Outcomes, Purpose, and Engagement, academically focused factors, are more negatively associated with Disengagement.

Positivity and Resilience are more positively associated with Academic Buoyancy.

Hence the PROSPER instrument is useful for studying both general and academic wellbeing interventions.

2.8.3. RQ3. WHAT IS THE CRITICAL YEAR LEVEL FOR AN INTERVENTION TO MAINTAIN PRIMARY STUDENTS' SUBJECTIVE WELLBEING?

To answer this research question, the students' responses to the PROSPER factors were examined for each year level. The analysis was conducted in three stages to examine: (1) patterns of scores from Year 2 to Year 6 at Time 1 (before intervention), (2) patterns of scores at Time 2 after progressing to the next year level (after intervention) from Year 3 to Year 6, and (3) patterns of scores at Time 1 and Time 2 when inspected together as cross-sectional data. The patterns found at Time 1 will tell us which year level is likely to be the critical time for intervention. The patterns found at Time 2 (after intervention) will tell us which year-level is likely to be responsive to the wellbeing intervention and which level is not. The patterns found when putting Time 1 and Time 2 cross-sectional data together may give us a clear picture of the critical time point for effective intervention to prevent the onset of issues with wellbeing.

Time 1

Table 3 shows the average scores for Time 1 (pre-test) by level.

Table 3. Descriptive Statistics by Year Level Time 1

FACTOR		Y2	Y3	Y4	Y5	Y6
	<i>N</i>	89	73	78	103	62
Pos	<i>M</i>	4.72	4.87	5.37	4.86	4.44
	(<i>SD</i>)	(1.42)	(1.01)	(0.74)	(1.22)	(1.18)
Rel	<i>M</i>	5.13	5.10	5.44	5.11	4.79
	(<i>SD</i>)	(0.96)	(0.78)	(0.70)	(0.96)	(0.95)
OPE	<i>M</i>	4.91	5.18	5.42	5.12	4.85
	(<i>SD</i>)	(1.19)	(0.85)	(0.65)	(0.93)	(0.79)
Str	<i>M</i>	5.09	5.27	5.56	5.27	5.02
	(<i>SD</i>)	(1.08)	(0.70)	(0.57)	(0.88)	(0.96)
Res	<i>M</i>	4.37	4.64	4.99	4.66	4.42
	(<i>SD</i>)	(1.28)	(0.95)	(0.89)	(1.03)	(1.12)

Note: *N*=405. Pos = Positivity. Rel = Relationships. OPE = Outcomes, Purpose, and Engagement. Str = Strength. Res = Resilience. **p* < .05. ***p* < .001.

The pattern of scores by year level is presented in Figure 1. In general, there is a peak of all PROSPER factor scores in Year 4. However, a clear drop is observed thereafter.

Statistical comparisons showed that:

For Positivity, students in Year 4 (5.37) were higher than Year 2 (4.72), and Year 6 (4.44).

For Relationships, students in Year 4 (5.44) were higher than Year 6 (4.79).

For Outcomes/Purpose/Engagement, Year 4 (5.37) were higher than Year 2 (4.91), and Year 6 (4.85).

For Strength, Year 4 (5.27) were higher than Year 2 (5.09), and Year 6 (5.02).

For Resilience, Year 4 (4.99) were higher than Year 2 (4.37).

In sum, Year 4 showed the highest scores for all measures. Scores in Year 6 were significantly lower. Hence Time 1 data indicate that intervention may benefit students before wellbeing measures drop in Year 4 of primary school to prevent any decline. Any intervention after Year 4 may only serve the purpose of remedy after declines of wellbeing have occurred.

Figure 1 summarises the pattern of scores showing an apparent downward trend across all wellbeing factors from Year 4 to Year 6.

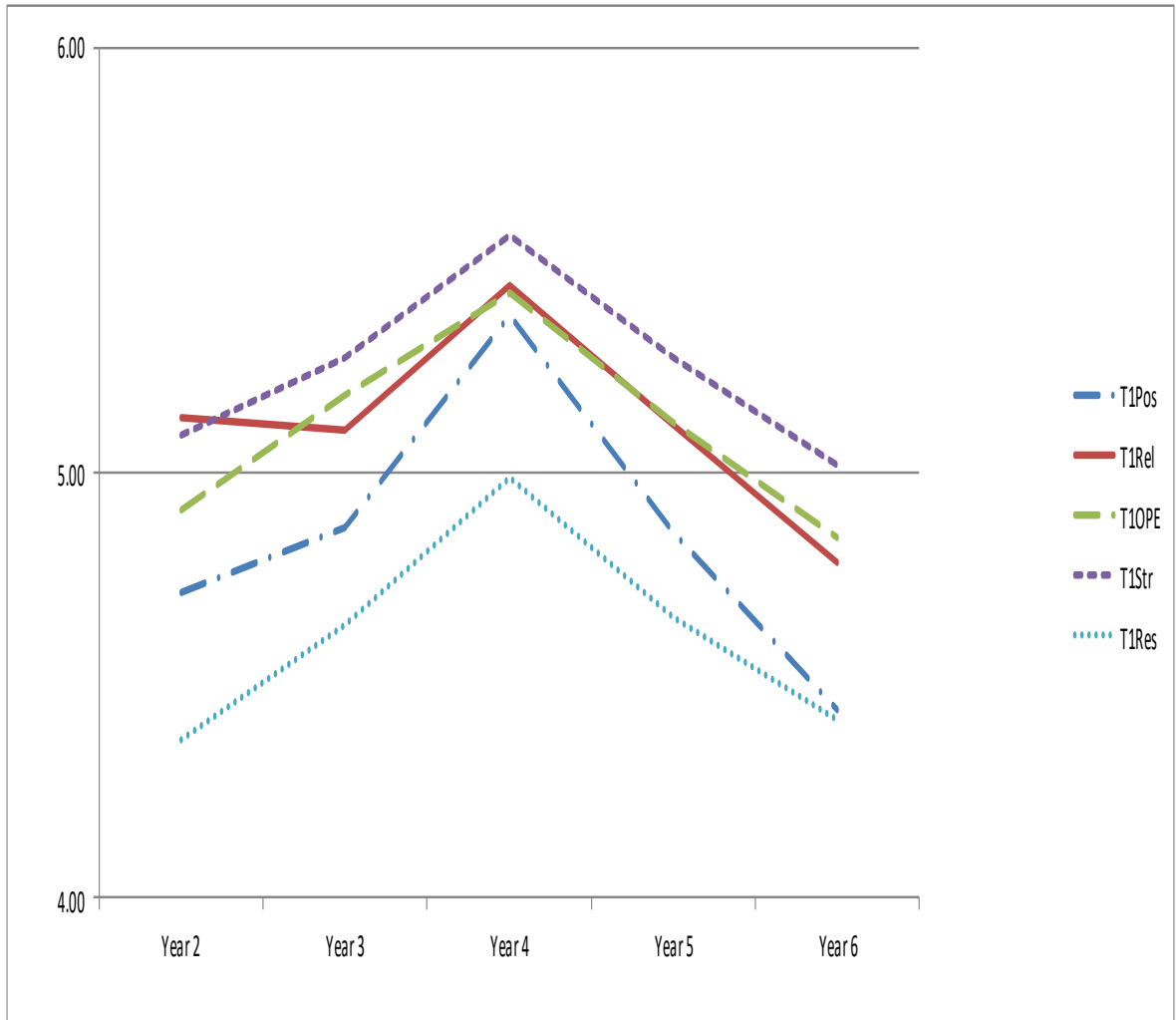


Figure 1: Student data from Year 2 to Year 6 at Time 1 prior to intervention. These data show a drop in all PROSPER wellbeing factors from Year 4.

Time 2

Table 4 shows the average scores for Time 2 (post-test) by level.

Table 4. Descriptive Statistics by Year Level Time 2

FACTOR		Y3	Y4	Y5	Y6
	<i>N</i>	39	62	42	54
Pos	<i>M</i>	5.06	4.55	5.20	4.88
	(<i>SD</i>)	(1.10)	(1.20)	(1.03)	(1.16)
Rel	<i>M</i>	5.10	5.08	5.19	5.14
	(<i>SD</i>)	(0.81)	(0.84)	(0.88)	(1.02)
OPE	<i>M</i>	5.31	4.97	5.29	5.27
	(<i>SD</i>)	(0.73)	(0.91)	(0.77)	(0.84)
Str	<i>M</i>	5.32	5.24	5.28	5.36
	(<i>SD</i>)	(0.79)	(0.77)	(0.86)	(0.87)
Res	<i>M</i>	4.83	4.46	4.61	4.74
	(<i>SD</i>)	(1.06)	(0.99)	(1.13)	(1.03)

Note: *N*=197. Pos = Positivity. Rel = Relationships. OPE = Outcomes, Purpose, and Engagement. Str = Strength. Res = Resilience.

Statistical comparisons did not find significant differences across levels. However, except for Relationships which did not show any difference from Year 3 to Year 6, there was a consistent pattern showing that Year 4 students were lower in all other wellbeing variables.

Note that Year 4 at Time 2 were Year 3 students at Time 1 when the intervention took place. This implies that perhaps Year 3 students did not respond to the 10-week intervention as well as students in other levels.

Between Year 4 and Year 6, the downward trend found at Time 1 seemed less prevalent. However, this should not be interpreted as intervention effects, as this analysis did not account for Time 1 scores.

Figure 2 (Time 2) summarises the pattern of scores showing a pattern different from Figure 1 (Time 1). The downward trend observed at Time 1 from Year 4 to Year 6 is no longer evident after intervention at Time 2.

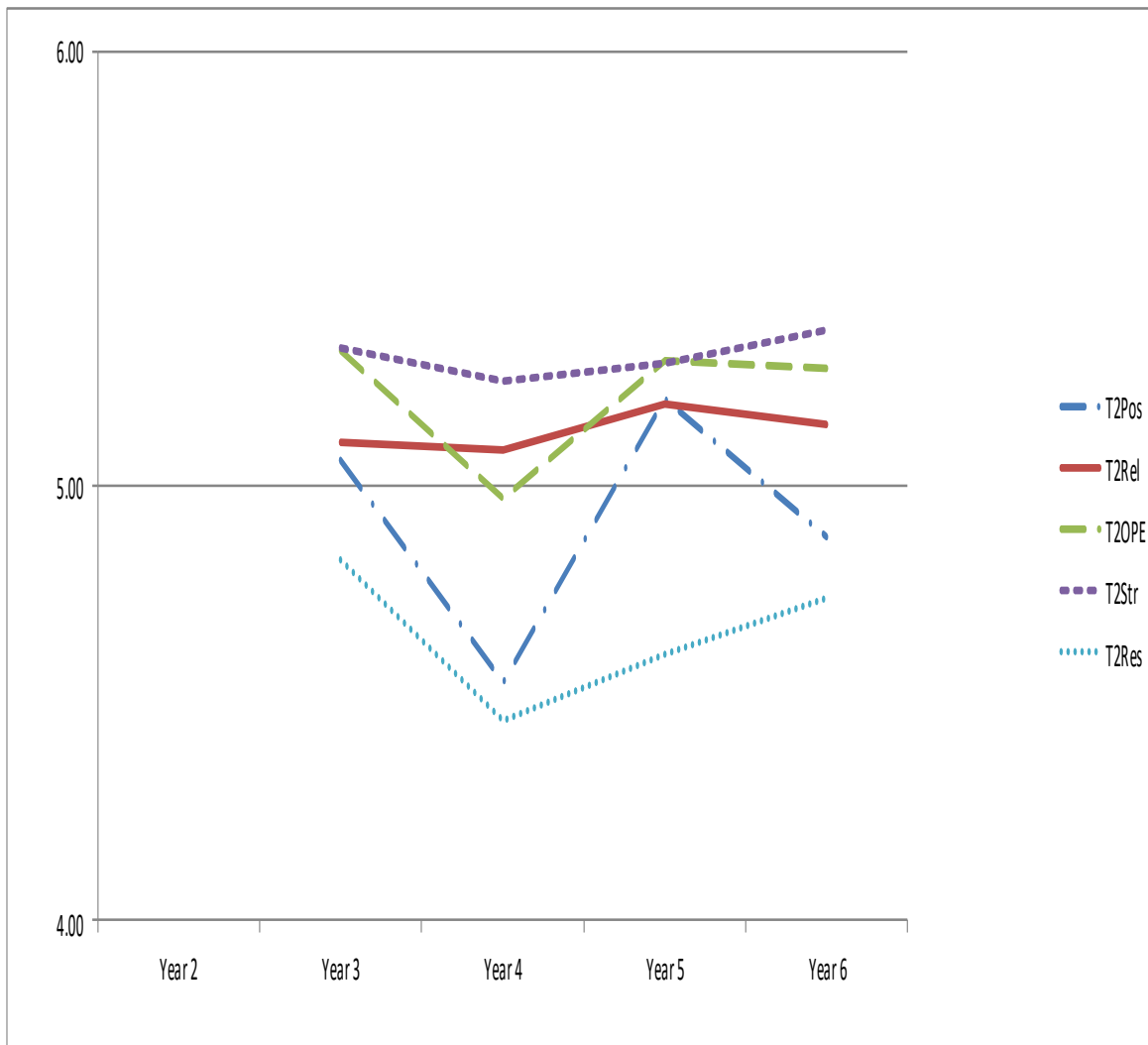


Figure 2: Student data from Year 3 to Year 6 at Time 2

Note: N=513 (405 at Time 1; 197 at Time 2). Pos = Positivity. Rel = Relationships. OPE = Outcomes, Purpose, and Engagement. Str = Strength. Res = Resilience. * $p < .05$. ** $p < .001$. Year 3 students were Year 2 at Time 1, Year 4 students were Year 3 at Time 1, Year 5 students were Year 4 at Time 1, whereas Year 6 students were Year 5 at Time 1.

Time 1 and Time 2

Figures 3 to 7 show the student data on the PROSPER factors at Time 1 in Term 2, 2017 (prior to intervention) and Time 2 in Term 1, 2018. There were 513 students at Time 1 but only 197 at Time 2. Therefore, the comparisons can only give us a general pattern of scores for students at different year levels, and are not indicative of intervention effects or change in scores over time.

As can be seen in Figure 3, for students' positivity, the high scores for Year 4 students at Time 1 are not observed at Time 2. As Year 4 students at Time 2 were Year 3 students at Time 1, this seems to support the earlier speculation that Year 3 students at Time 1 did not respond to the intervention well enough to have their wellbeing maintained. However, another observation is that the lower wellbeing scores for Year 5 and Year 6 as recorded at Time 1 are not as prevalent at Time 2. Time 2 positivity scores are higher than Time 1 scores for Years 5 and 6.

From the Time 1 patterns, it seems that to prevent the onset of wellbeing issues, the intervention should be in place from Year 4 or Year 5 so that decline will not occur. From the Time 2 patterns, however, it should be Year 3 that is critical as there is a possibility of either weak response of Year 3 to the intervention, or that the 10-week intervention is not robust enough to bring strong preventive effects.

In other words, the consistently lower Year 4 Time 2 scores of the students may imply two possibilities: (1) perhaps the intervention was not strong enough to help Year 3 students gain in the wellbeing measures within a short intervention duration, or (2) any gain due to intervention may not be sustainable for Year 3 students in 4 months while progressing to Year 4, partly due to the long Christmas break in between.

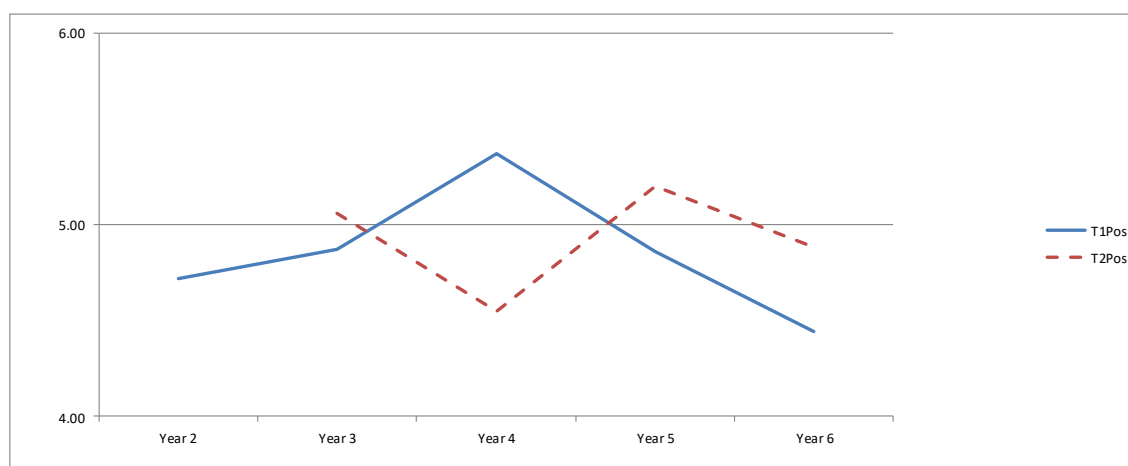


Figure 3. Positivity

Note: At Time 2, Year 3 students were Year 2 at Time 1, Year 4 students were Year 3 at Time 1, Year 5 students were Year 4 at Time 1, whereas Year 6 students were Year 5 at Time 1.

In Figure 4, for students' relationships, the scores for Year 4 students at Time 2 is not as high as those at Time 1. The scores across levels at Time 2 are primarily horizontal, showing little difference across year levels. A clear difference in the trends between Time 1 and Time 2 is that the drop from Year 4 to Year 6 at Time 1 is no longer observed at Time 2.

From the Time 1 patterns, it seems that to prevent the onset of wellbeing issues, the intervention should be in place from Year 4 or Year 5. From the Time 2 patterns, however, there is no indication of this critical time

point as the current intervention seems to have made some effects especially for students who progressed from Year 5 at Time 1 to Year 6 at Time 2, as shown in the higher scores at Time 2.

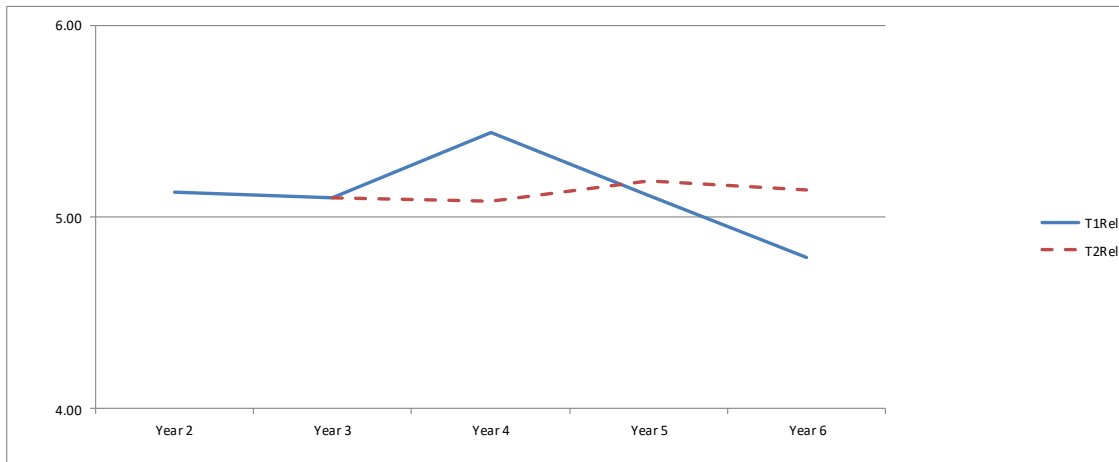


Figure 4. Relationships

Note: At Time 2, Year 3 students were Year 2 at Time 1, Year 4 students were Year 3 at Time 1, Year 5 students were Year 4 at Time 1, whereas Year 6 students were Year 5 at Time 1.

Figure 5 shows composite scores for Outcomes, Purpose, and Engagement. The patterns are similar to those for Positivity (Figure 3). The high scores for Year 4 students at Time 1 are not observed at Time 2. However, the lower wellbeing scores for Year 5 and Year 6 as recorded at Time 1 are not as prevalent at Time 2. The scores are higher at Time 2 than at Time 1 for Years 5 and 6.

From the Time 1 patterns, the intervention should start from Year 4 or Year 5 but from the Time 2 patterns, Year 3 is critical as there is a possibility of either weak response of to the intervention, or that the 10-week intervention is not robust enough to bring strong preventive effects.

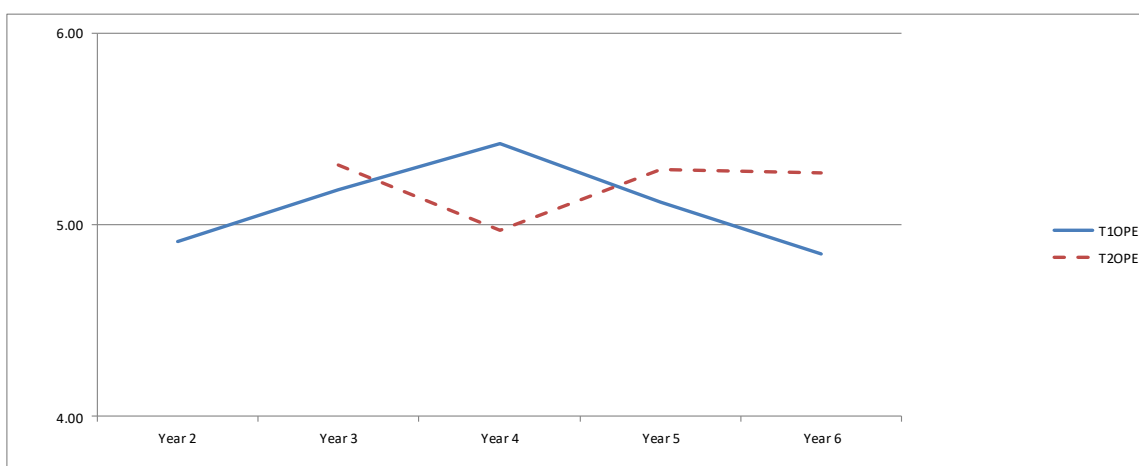


Figure 5. Outcomes/Purpose/Engagement

Note: At Time 2, Year 3 students were Year 2 at Time 1, Year 4 students were Year 3 at Time 1, Year 5 students were Year 4 at Time 1, whereas Year 6 students were Year 5 at Time 1.

In Figure 4, for Strengths, the patterns are similar to that for Relationships (Figure 4). The scores across levels at Time 2 are primarily horizontal, showing little difference across year levels. A clear difference is the slightly higher score for Year 6 at Time 2.

From the Time 1 patterns, it seems that to prevent the onset of wellbeing issues, the intervention should be in place from Year 4 or Year 5. From the Time 2 patterns, there is no indication of this critical time point. The current intervention seems to have made gains for students who progressed from Year 5 at Time 1 to Year 6 at Time 2.

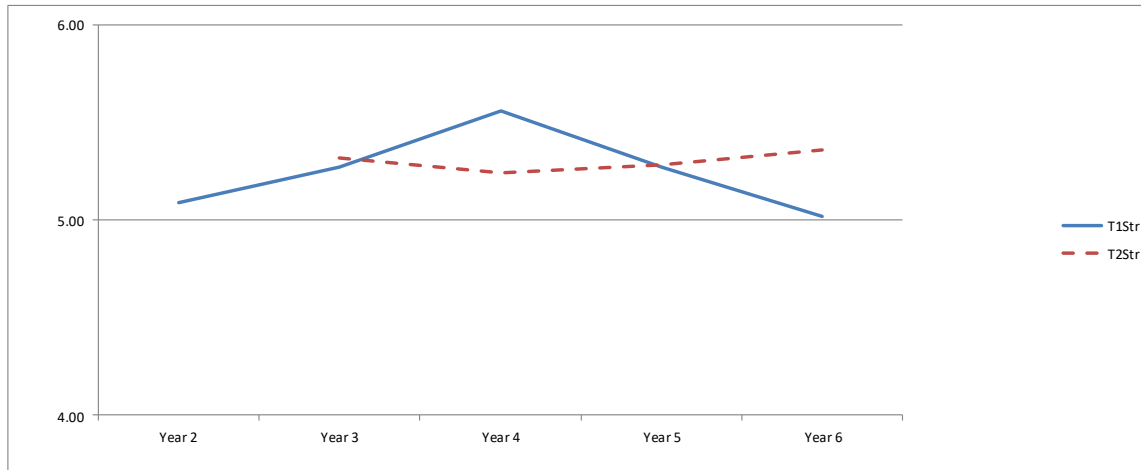


Figure 6. Strengths

Note: At Time 2, Year 3 students were Year 2 at Time 1, Year 4 students were Year 3 at Time 1, Year 5 students were Year 4 at Time 1, whereas Year 6 students were Year 5 at Time 1.

Figure 7 shows the scores for Resilience. The pattern is similar to that for the composite scores for Outcomes, Purpose, and Engagement (Figure 5). The high scores for Year 4 students at Time 1 are not observed at Time 2. However, the lower scores for Year 6 as recorded at Time 1 are observed at Time 2.

From the Time 1 patterns, the intervention should start from Year 4 or Year 5, but from the Time 2 patterns, Year 3 is critical as there is a possibility of either weak response of to the intervention, or that the 10-week intervention is not robust enough to bring strong preventive effects for Year 3 students.

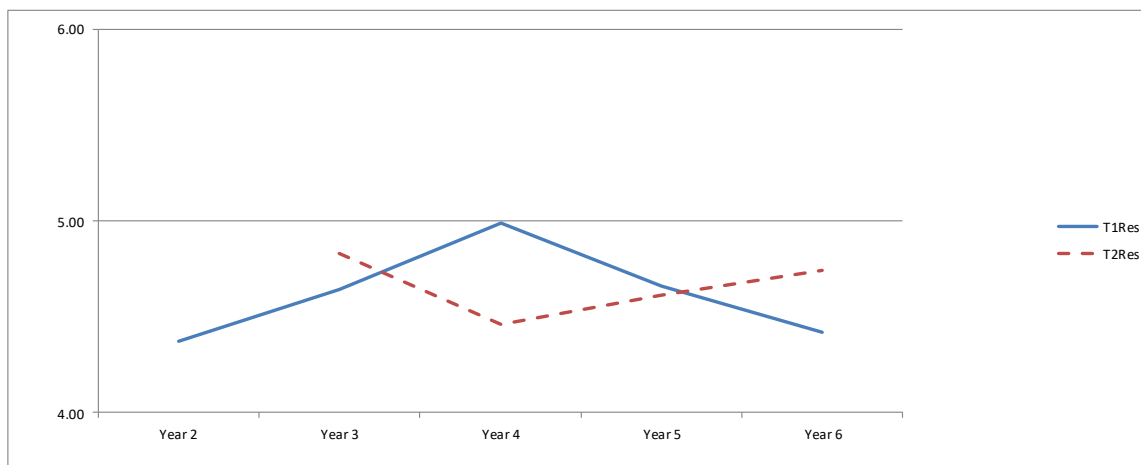


Figure 7. Resilience

Note: At Time 2, Year 3 students were Year 2 at Time 1, Year 4 students were Year 3 at Time 1, Year 5 students were Year 4 at Time 1, whereas Year 6 students were Year 5 at Time 1.

In sum, mixed messages were obtained from the data as shown in Figures 1 to 7. Firstly, at Time 1, prior to the introduction of the Bounce Back program, the drop in all PROSPER measures from Year 4 indicated the importance of teaching the skills of wellbeing and resilience from the early years of schooling (no later than Year 5 before the onset of decline) to help arrest this drop.

Secondly, at Time 2 when students were tested again in the following year 4 months after intervention, including the long 8-week Christmas break, the Year 3 students at Time 1 (now in Year 4 at Time 2) did not seem to be as responsive to the Bounce Back intervention as the students in the older years. Arguably this further indicates the importance of early intervention in the early school years prior to Year 4, the critical year being Year 3, as implied in the current data.

Considering the long lapse between the intervention and the post-test, the patterns seem also to suggest the importance for younger primary aged children (e.g., Year 3) to be constantly reminded of the key messages. By providing them with repeated and continual opportunities to practise the skills and understandings, these skills and understandings may be better remembered and become a 'habitual' positive influence on their wellbeing and resilience.

An interesting finding for higher year levels was that the intervention seemed to benefit Year 6 students. This contradicts with some teachers' speculation that students in higher year levels would have their perceptions more or less fixed, and are therefore less malleable. The patterns in Figures 3 to 7, instead, showed a slight rise of scores for all measures.

Mixed messages were obtained from the data. First, Year 4 to Year 5 seems to be the most critical time for intervention because Time 1 data showed that all measures dropped from Year 4 onwards. Second, Year 3 did not seem to be as responsive to our short intervention, leading to a slight drop in all measures in Year 4 in the next year 4 months after intervention (including 8 weeks' Christmas break). These imply that: (1) the intervention should not be later than Year 4, and (2) intervention is likely to benefit primary students at all year levels.

2.8.4. RQ4. CAN A SHORT (10-WEEK) BOUNCE BACK INTERVENTION, USING THE PROSPER FRAMEWORK, MAINTAIN STUDENTS' SUBJECTIVE WELLBEING 4 MONTHS AFTER INTERVENTION?

To answer RQ4, an analysis of longitudinal student survey data was conducted. In the longitudinal data, each individual student is matched between Time 1 and Time 2. The analysis is therefore a more accurate scrutiny of the change, if any, in the individuals' scores in each of the PROSPER factors.

Repeated-measures analysis of variance was used to test whether students' wellbeing measured within the PROSPER framework could be maintained from Time 1 to Time 2. A maintained level of wellbeing here would mean that no significant drop in scores was found from Time 1 to Time 2. Because the analysis used longitudinal data (i.e., the scores for each individual were matched across Time 1 and Time 2), this analysis is a more accurate scrutiny of the intervention effects. However, because there was no control, it will not be appropriate to make strong claim of intervention effect.

Table 5 shows the average scores of each factor by year level. Statistical comparisons did not find any significant difference between Time 1 and Time 2 scores, or any significant difference across year levels.

The students' scores in all the PROSPER measures remained unchanged irrespective of year level.

Table 5. Longitudinal Survey Data Descriptive Statistics

FACTOR	N	Y2-3		Y3-4		Y4-5		Y5-6	
		T1	T2	T1	T2	T1	T2	T1	T2
Pos	M	4.96	4.96	4.82	4.49	5.23	5.04	4.82	4.91
	(SD)	(1.39)	(1.20)	(0.96)	(1.30)	(0.79)	(0.94)	(1.29)	(1.18)
Rel	M	5.16	5.19	5.06	5.01	5.33	5.16	5.20	5.15
	(SD)	(0.92)	(0.88)	(0.80)	(0.83)	(0.81)	(0.77)	(0.91)	(1.06)
OPE	M	5.15	5.33	5.20	5.00	5.30	5.24	5.04	5.23
	(SD)	(0.89)	(0.74)	(0.80)	(0.94)	(0.74)	(0.79)	(1.00)	(0.85)
Str	M	5.35	5.31	5.25	5.38	5.55	5.14	5.27	5.34
	(SD)	(0.72)	(0.86)	(0.69)	(0.59)	(0.60)	(0.96)	(0.94)	(0.83)
Res	M	4.53	4.66	4.77	4.46	4.80	4.57	4.66	4.66
	(SD)	(1.07)	(1.26)	(0.83)	(1.04)	(1.00)	(1.02)	(1.12)	(1.07)

Note: For the repeated-measures analysis of variance, $N = 231$. Pos = Positivity. Rel = Relationships. OPE = Outcomes, Purpose, and Engagement. Str = Strength. Res = Resilience. All cross-level comparisons are not statistically significant ($p > .05$).

The patterns between Time 1 and Time 2 are shown in Figures 8 to 12. Although the lines seem to vary such that some rise from Time 1 to Time 2 whereas others drop, these changes are not statistically significant, and therefore not noteworthy. Given the known fact: (1) from Time 1 data (Figure 1) that wellbeing scores tend to drop from Year 4 onwards, and (2) there was an 8-week break immediately after the intervention, during which the students received no input from school, it would be too optimistic and unrealistic to expect an upward trend attributable to the Bounce Back intervention. In this sense, a level trend (including little, if any, change) may be interpreted as indication of favourable effects of the 10-week program.

Overall, there was no statistical difference across the year levels, and there was no statistical difference between Time 1 and Time 2 wellbeing measures. Some measures improved slightly over time while some others dropped a little, but neither trend was noteworthy. This level trend may be interpreted as indication of favourable effects of the 10-week program.

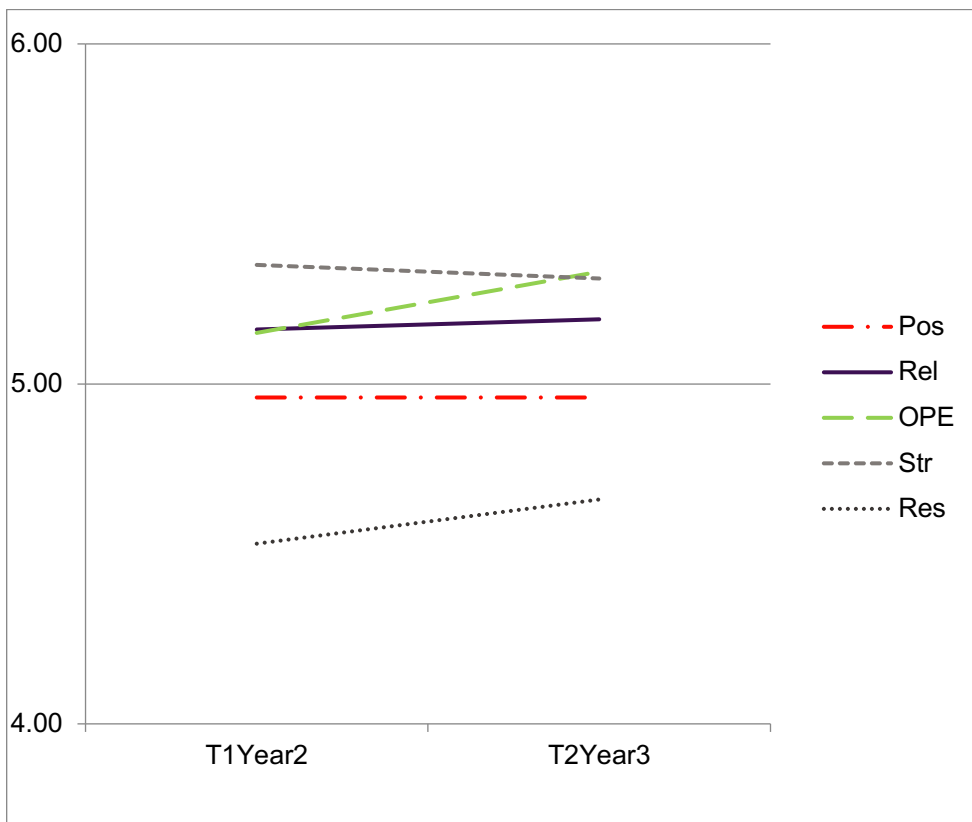


Figure 8. Change from T1 to T2 for Year 2 students at Time 1.

Note: Longitudinal data in which each individual student was matched across Time 1 and Time 2. $N = 231$. Pos = Positivity. Rel = Relationships. OPE = Outcomes, Purpose, and Engagement. Str = Strength. Res = Resilience. All cross-level comparisons are not statistically significant ($p > .05$). All comparisons between Time 1 and Time 2 are not statistically significant either ($p > .05$).

For Year 2, although there seems to be slight improvements in Positivity and Resilience, the change was not statistically significant.

For Year 2 students, the short intervention using the PROSPER framework was able to maintain students' subjective wellbeing even after a long term break progressing into Year 3.

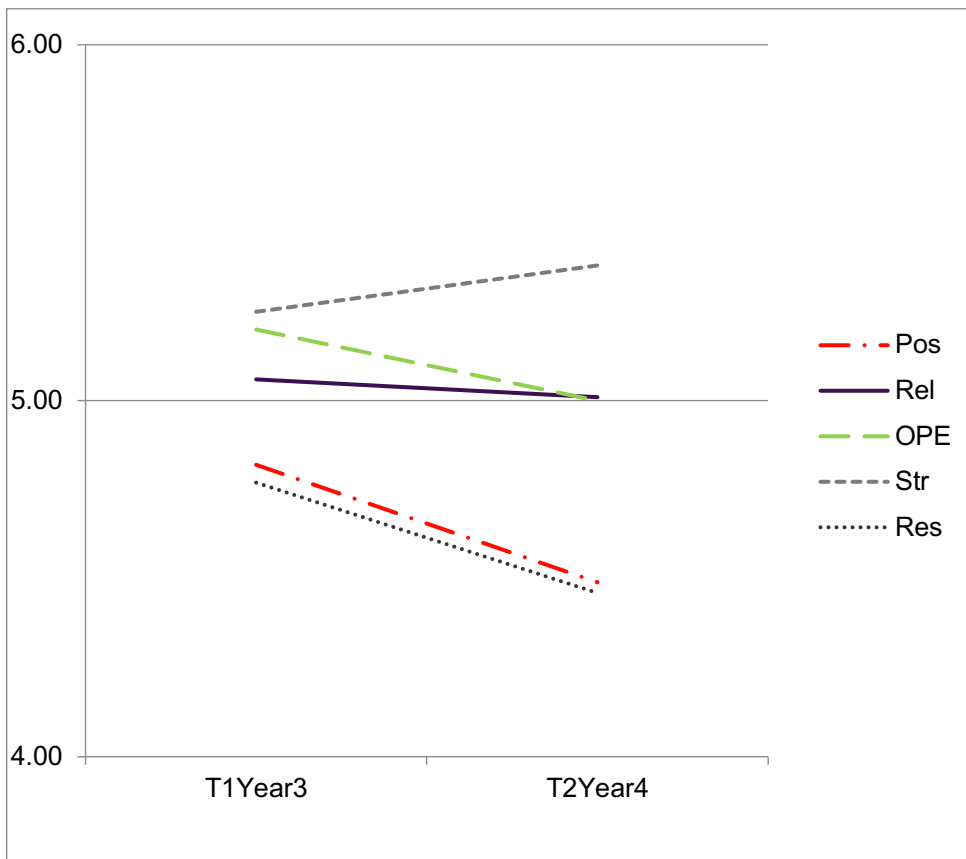


Figure 9. Change from T1 to T2 for Year 3 students at Time 1.

Note: Longitudinal data in which each individual student was matched across Time 1 and Time 2. $N = 231$. Pos = Positivity. Rel = Relationships. OPE = Outcomes, Purpose, and Engagement. Str = Strength. Res = Resilience. All cross-level comparisons are not statistically significant ($p > .05$). All comparisons between Time 1 and Time 2 are not statistically significant either ($p > .05$).

For Year 3, the apparently declining trend seems to be consistent with the findings in Figures 3 to 7 showing a drop in scores from Year 3 to Year 4. However, although Figure 9 shows that there seems to be slight improvement in Strength but slight drops in Outcomes/Purpose/Engagement, Positivity, and Resilience, the changes were not statistically significant.

For Year 3 students at Time 1, there appears a slight drop in all measures. However, the difference was not statistically significant. Therefore, the short intervention seemed to be able to maintain students' subjective wellbeing even after a 4-month lapse progressing into Year 4.

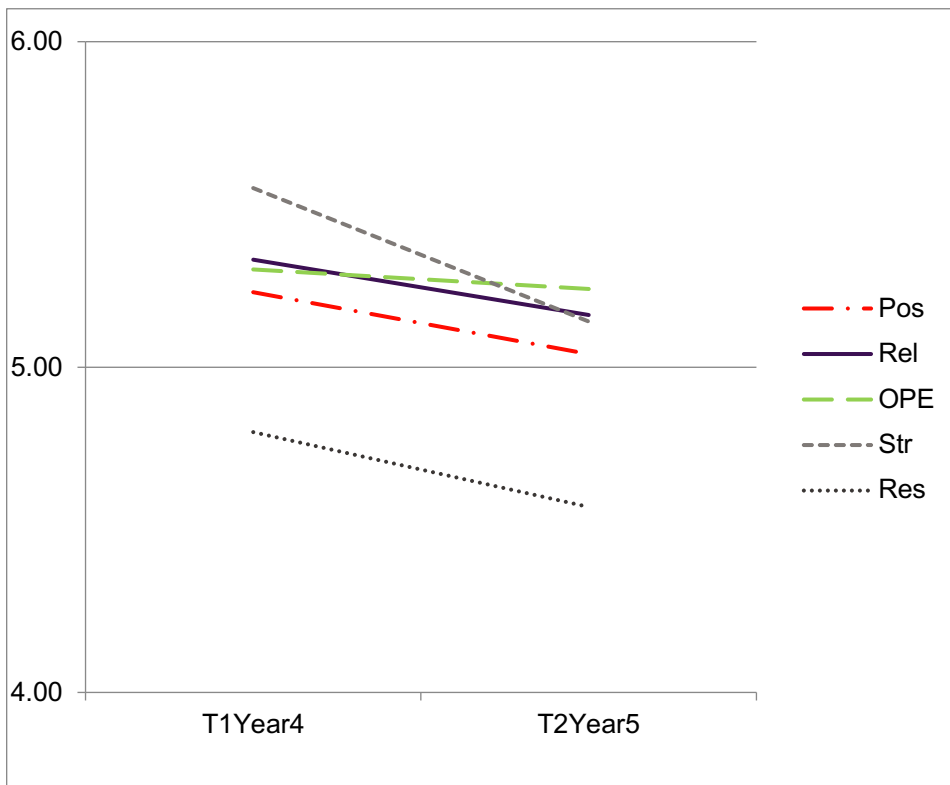


Figure 10. Change from T1 to T2 for Year 4 students at Time 1.

Note: Longitudinal data in which each individual student was matched across Time 1 and Time 2. $N = 231$. Pos = Positivity. Rel = Relationships. OPE = Outcomes, Purpose, and Engagement. Str = Strength. Res = Resilience. All cross-level comparisons are not statistically significant ($p > .05$). All comparisons between Time 1 and Time 2 are not statistically significant either ($p > .05$).

For Year 4, although there seems to be slight drops in most variables, the changes were not statistically significant.

Similar to Year 3, for Year 4 students, there seems to be a slight drop in all measures, but not statistically significant. Therefore, the short intervention seemed to be able to maintain students' subjective wellbeing even after a long lapse progressing into Year 5 even after a 4-month non-intervention period.

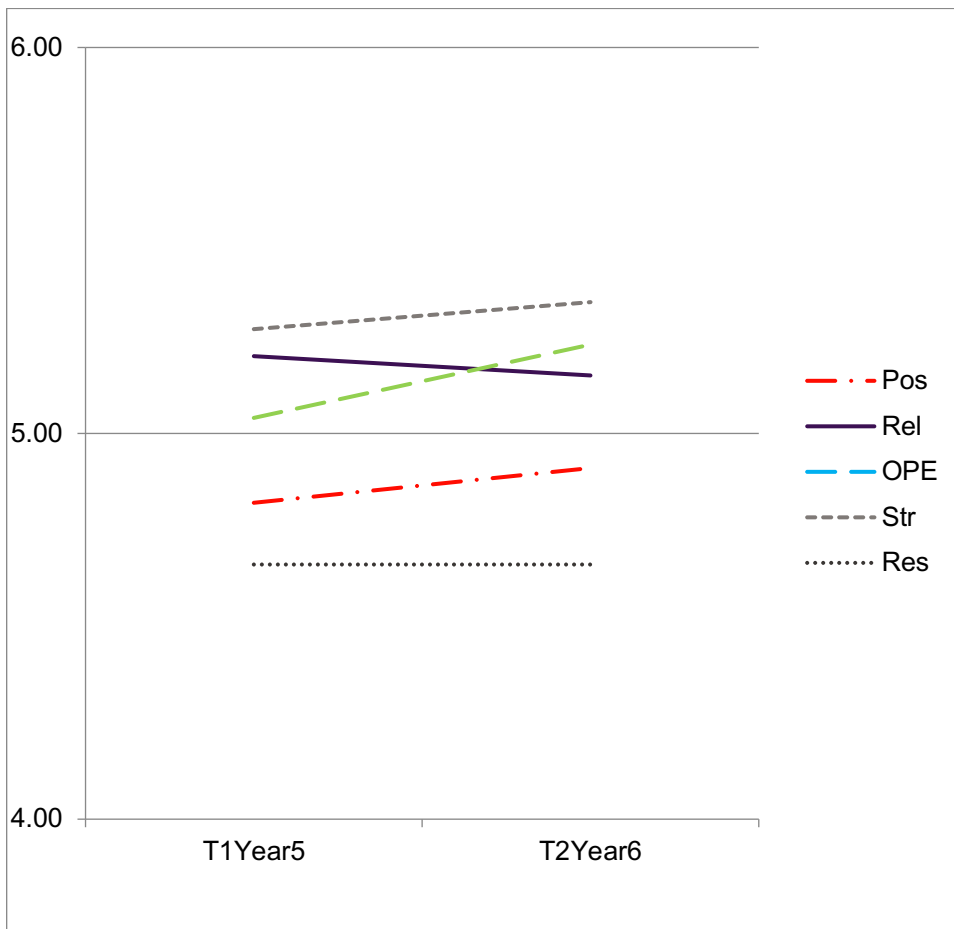


Figure 10. Change from T1 to T2 for Year 4 students at Time 1.

Note: Longitudinal data in which each individual student was matched across Time 1 and Time 2. $N = 231$. Pos = Positivity. Rel = Relationships. OPE = Outcomes, Purpose, and Engagement. Str = Strength. Res = Resilience. All cross-level comparisons are not statistically significant ($p > .05$). All comparisons between Time 1 and Time 2 are not statistically significant either ($p > .05$).

For Year 5, although there seems to be slight changes in the variables, all changes were not statistically significant.

The pattern for Year 5 students progressing into Year 6 is pleasing. The short intervention was able to maintain students' subjective wellbeing even after a long lapse.

In sum, answering RQ4, the student survey data indicate that despite the short duration of the intervention and the long period of non-input, the Bounce Back program seemed to be able to counter the downward trend of subjective wellbeing that is likely to start from Year 4.

Considering both the qualitative and quantitative findings, there is evidence that the Bounce Back program is able to maintain students' wellbeing measured within the PROSPER framework that underpins the intervention.

2.8.5. RQ5. TO WHAT EXTENT DO TEACHERS PERCEIVE A DIFFERENCE IN BEHAVIOUR AND SOCIAL-EMOTIONAL SKILLS BETWEEN THE BEGINNING AND END OF THE INTERVENTION?

To answer RQ5, data were collected qualitatively through focus groups with teachers. Ten themes were identified upon analysis of the interview transcripts. These 10 themes can be further classified into three higher order categories: (1) student gains, (2) community-level gains, and (3) implementation factors (see Table 6).

2.8.5.1. STUDENT GAINS

Student gains included three themes based on teachers' observations of an increase in three factors: (i) students' *coping strategies* in managing setbacks and difficulties, (ii) students' *transfer of skills* (i.e., an increase in students' capacity to apply the new social-emotional skills in different settings such as anger management, coping with friendship difficulties, or forming inclusive groups, and (iii) students' *enhanced engagement* in learning and participation in lessons such as in class discussions. All three themes were perceived as outcomes of teaching the Bounce Back program.

Table 6 shows some of the responses in the focus groups pertaining to each category that emerged from the respective themes.

2.8.5.2. COMMUNITY GAINS

Four themes emerged from the focus groups as a result of the school's implementation of the Bounce Back program across the whole school. A strong theme that emerged from the focus group was (i) a *common language* of resilience and social and emotional wellbeing that was shared and understood by the whole school community. This common language was observed not only in the classroom and not only among students and teachers, but also by parents such that efforts to foster student wellbeing and resilience were consistent within the school and beyond. Critically, it was probably not simply the explicit use of the Bounce Back program language that promoted the common language, but also that the messages from the program became ingrained and shared, leading also to (ii) *cultural change* and a greater consistency between teachers in the way they dealt with student issues, leading to improved behaviour. The positive change of behaviour was displayed in terms of the quality and quantity of the students' expressions of their feelings, reflecting their feelings of (iii) *safety* in the school environment to voice their personal views, and their perceptions. Apart from students, the teachers also found benefits of the program for their own (iv) *teacher wellbeing*. In essence, they seemed to become more open and more flexible in applying appropriate skills to maintain their own wellbeing.

2.8.5.3. IMPLEMENTATION FACTORS

Three themes emerged in regard to implementation:

(i) *upskilling of staff* (i.e., an increase in teachers' confidence in teaching positive education and addressing student setbacks and challenges in behaviour,

- (ii) the *use of children's literature* in the program is perceived as facilitating teaching the program's key messages, and
- (iii) *differences with age* (i.e., teachers found it was easier to gain student development in wellbeing and resilience with younger grades).

In sum, teachers perceive a positive change in behaviour and social-emotional skills between the beginning and end of the intervention, supporting previous evidence of the program in other school settings (e.g., Axford, Schepens, & Blyth, 2011). Evidence seems to also show a positive change in the teachers' social-emotional skills and their teaching strategies that foster their students' development.

Table 6. Three Categories from 10 Themes Identified from Focus Groups

THEMES	EXAMPLES
Coping Strategies	<p>"One of the big things I've noticed is building the resilience in the kids....giving them strategies."</p> <p>"It's giving them strategies to deal with life really. And being considerate of others."</p> <p>"One of the kids picked on another kid, and another couple of girls went up and said, "okay, so, alright, we'll use our Bounce Back, and we'll bounce back from this.""</p> <p>"They now talk about it's not the worst thing that could happen, there's a lot more people worse off."</p> <p>"Instead of jumping in on the negative side that always happened, they jump on the positives."</p>
Transfer of Skills	<p>"[He'll] let us know when he's angry whereas before there were no words."</p> <p>"I don't have to stand there and say, "Go and find someone", they often do just go with whoever's not got a partner or something."</p> <p>"Year 2s are now much better at working at and solving friendship problems."</p> <p>"Some of our characters have just flourished in understanding why they feel the way they feel. If they get into difficulty they have the language to deal with it better."</p> <p>"I find the language and the interactions between the kids are more positive, they are showing more respect."</p> <p>"It's good cause the kids are actually using it (key Bounce Back concepts) throughout other subjects as well."</p>
Enhanced Engagement	<p>"There's been a big difference in my classroom. I think the students are more engaged."</p> <p>"In all our conversations, everybody's far more far more engaged and interested in what others have to say."</p> <p>"They wanted circle time and they asked for it. "Can we have circle time?"</p>

Community Gains

THEMES	EXAMPLES
A common language	<p>"It's having the common language to talk about situations in the playground.... all the grades are doing it and everyone understands."</p> <p>"The language is there. The language is there for the parents, it's there for the children."</p> <p>"I like that it's giving the children a new language to use, I guess, of positive education."</p> <p>"They will use the language that says someone's using resilience or that they're bouncing back."</p> <p>"If we say to them, "What needs to happen here?" I might not even be looking for that answer but someone will say, "<i>oh, I need to go bounce back from this.</i>"</p> <p>Resilience is the main word that's being used</p>
Feelings of Safety	<p>"After two or three lessons, they really opened up and I think it's been a really good place for them to be able to talk about things that they're thinking and feeling."</p> <p>"Kids are more confident now saying their feelings."</p> <p>"It was a safe forum for everybody to tell the others how they cope with things, how they feel about things, how they feel when that happens, how they would deal with that if that happened."</p>
Cultural change	<p>"It is starting to be immersed, even in the culture."</p> <p>"The way we now approach wellbeing is very unified. And I think Bounce Back has helped with that."</p> <p>"They're more friendly to each other and it seems like a more positive environment."</p> <p>"What we've always tried and what we've believed [as a Catholic school], is well represented in this program."</p> <p>"I think that the strategies of talking things through and concentrating on positives, have been big. And I've seen my kids doing that. They're going, "Okay well, that didn't work, but we could do this."</p>
Teacher wellbeing	<p>"I put a lot of emphasis on getting everything right. It's all well and good to say it's okay for you not to be perfect but to recognise that no one else is perfect either has definitely helped my wellbeing this year."</p> <p>"[I'm able] to walk in and say "Look, I'm actually feeling a bit ordinary" or "I need a bit of help" or "I'm a bit stressed." Whereas before I think it just would have been a bit more secretive."</p>

Implementation Factors

THEMES	EXAMPLES
Upskilling of staff	<p>“It gives us tools, when we are dealing with situations to make sure we are using the same language.”</p> <p>“It’s explicit and I think that’s what made it so engaging for the students, that it was so succinct, the lessons and it was something you could go pick up and run with.”</p> <p>“I discussed with [a student] different coping strategies, and how they were going to cope with the fact that their dog died.”</p> <p>“It actually helps you to calm back down as well and say okay, I’ve got to think about my tone of voice. How am I going to deal with this and what sort of level of conversation do I need to have with this child.”</p>
Using children’s literature	<p>“It would be really difficult, I think, for them to get their heads around some of these situations that we ask them to consider. So using books is perfect.”</p> <p>“The books have been really good when we’ve got them.”</p>
Difference with age	<p>“When I had year five, they were a bit too cool for it.”</p> <p>“When you're looking at stage two and three you're looking at more ingrained ways of communicating and interacting in your social group whereas kindergarten is a bit more flexible.”</p>

There was a perceivable difference by the teachers in the social-emotional skills and behaviour of the students as a result of the 10-week intervention. Notable differences included: (1) student gains (including enhanced engagement, coping strategies, and transfer of skills), (2) community gains (a common language relating to resilience and wellbeing, feelings of safety, teacher wellbeing, and cultural change), and (3) implementation factors (upskilling of staff, using children’s books, and strategic differences with age).

Both students and teachers seemed to benefit from this program.

2.9. Implications for Future Research, Research Strategies and Limitations

This research project is a unique grass roots community-driven project in Positive Education that has been jointly funded by the local rural community for the benefit of their own children and ACU. The project is underpinned by the Upper Hunter's community's belief in the interconnectivity of individuals within their community. Hence the findings of this investigation have the potential to not only impact on the five rural school communities in the project but on the whole community through the dissemination of the findings within the broader Upper Hunter community. Acting on the premise that *'it takes a village to raise a child'*, the community-based charity WTAW believes that by involving their whole community, they are increasing the benefits of positive education for all their children and young people. Healthy and happy children become healthy and happy adults who are less vulnerable to mental health issues and more productive and more likely to contribute to a healthy environment and economy locally and nationally. Children's and young people's wellbeing in the Upper Hunter is seen by the Upper Hunter community as essential for developing a healthier and more productive community in the short term and in the long term both locally and nationally.

2.9.1. RESEARCH STRENGTH

- Involving students, teachers and parents in five school communities
- Developing and testing the psychometric properties of a new measure for student wellbeing based on the PROSPER framework
- Incorporating items in the PROSPER measure that indicate classroom and school factors that facilitate student wellbeing and hence can guide teacher practice
- Effectively correlating the PROSPER factors with two general wellbeing measures
- Identifying that the early years of primary school are critical for any preventative strategies to build student wellbeing and resilience so children are potentially more resilient by the senior years of primary school
- Capitalising on the burgeoning interest in positive education in the Upper Hunter community and beyond and how it can best be implemented in schools
- Trialling a highly regarded positive education curriculum (Bounce Back) that provides a teacher-friendly curriculum on how to explicitly teach the social and emotional learning and coping skills that underpin the PROSPER framework for wellbeing and resilience
- Focusing on positive strategies/positive education curriculum for intervention (rather than a deficit model) that builds students' skills and understanding in the seven PROSPER elements: positivity, relationships, strengths and resilience and outcomes/purpose/engagement.
- Systematic use of qualitative and quantitative methodologies to answer research questions.

2.9.2. RESEARCH LIMITATIONS

- It would be inappropriate to assume that all samples of rural children are homogenous in their response patterns to the PROSPER measures or that the findings can be generalised to different rural or urban communities.
- Time 2 data collected took place after a long summer vacation, which means that all grade 6 students at Time 1 were no longer available at Time 2 as they had left their primary school.
- Because of the 4-month lapse after completion of the intervention and Time 2 data collection, and also the 8-week summer break, Time 2 data would not have captured the real power of the intervention's preventive function in maintaining students' wellbeing.
- As there was no control group in this study, it would not be able to make strong claims about intervention effects.

2.10. Recommendations

Based on the research findings, the following recommendations are made:

1. It is recommended that 'take home' resources are provided for teachers to give students prior to a long break from lessons to help early primary students to maintain, remember and practise the key SEL skills for wellbeing and resilience.
2. Provide an avenue for direct communication from the positive education facilitators and researchers with all teachers to maintain smooth and prompt staff support for the project.
3. Introduction of processes for more direct communication on a social media network site for teachers to share news and materials. Students and parents could also be connected through their own networks.
4. Introduce process to maintain high-level teacher commitment to teaching the weekly recommended lesson.
5. Keep an online log book that is simple for teachers to use to indicate what Bounce Back lesson they taught each week. This will ensure fidelity of intervention.
6. Explore better ways to gain a high number of data returns from all stakeholders (teachers, parents, and students). A short video where a researcher and a representative from WTAW explains to parents the importance of the research and the potential benefits for every child and family may be helpful.
7. Make a video to explain to students the purpose of the survey and how to do the survey to help gain student engagement and support for their participation and commitment to honest responses to the online survey.
8. Given the finding that the use of books was an important part of the intervention, priority should be given to ensuring that the literature is easily accessed by all teachers, and that all resources are age appropriate to ensure rich and meaningful conversations.

2.11. Conclusion

Overall, the findings demonstrate the importance of teaching the skills for wellbeing and resilience from the early primary years. The Bounce Back project based on the PROSPER framework provided teachers with a positive education curriculum to teach their students in all primary grades the specific skills and understandings that maintained their students' wellbeing and resilience. This maintenance was achieved even after only 10 weeks of intervention and a long holiday break. This intervention is in its infancy, but from the strength of these early findings, we may envisage that a continuation of the weekly Bounce Back lessons will help to maintain their students' healthy levels of wellbeing and resilience in the long term, and hopefully for life. When teachers become more familiar with the key mental health and wellbeing messages taught through the Bounce Back curriculum, they will find many opportunities to teach these skills across the school curriculum and ways to more frequently embed the key skills and understandings in other areas of school life. By teaching these wellbeing skills, the teachers themselves will also benefit from an enhanced wellbeing and resilience.

This research enhances our understanding of the importance of the early school years in building student wellbeing and resilience. It provides feedback on the usefulness of the chosen positive education

curriculum (Bounce Back) in enhancing wellbeing and resilience. This research has also raised issues as to how the implementation may be improved for optimal outcomes. Researchers and practitioners using other positive education programs may consider using a guiding framework such as PROSPER described in this report to target both school-related and generic facets of students' wellbeing for best effects

2.12. References

- Axford, S., Schepens, R., & Blyth, K. (2011). Did introducing the Bounce Back Programme have an impact on resilience, connectedness and wellbeing of children and teachers in 16 primary schools in Perth and Kinross, Scotland? *Educational Psychology, 12*(1), 2-5.
- Dix, K. L., Slee, P. T., Lawson, M. J., & Keeves, J. P. (2012). Implementation quality of whole-school mental health promotion and students' academic performance. *Child and Adolescent Mental Health, 17*(1), 45-51.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432.
- KidsMatter Program Guide (2014). <http://www.kidsmatter.edu.au/primary/resources-for-schools/other-resources/programs-guide>. Retrieved May 23rd, 2014.
- Marsh, H. W. (1990b). The structure of academic self-concept: The Marsh/Shavelson model. *Journal of Educational Psychology, 82*, 623-636.
- Martin, A. J. (2003). The Student Motivation Scale: Further testing of an instrument that measures school students' motivation. *Australian Journal of Education, 47*, 88-106.
- Martin, A. J. (2008). Enhancing student motivation and engagement: The effects of a multidimensional intervention. *Contemporary Educational Psychology, 33*, 239-269.
- McGrath, H. & Noble, T. (2011). *BOUNCE BACK! A wellbeing & resilience program*. Lower Primary K-2; Middle Primary: Yrs 3-4; Upper Primary/Junior Secondary: Yrs 5-8. Melbourne: Pearson Education. (2017/3rd Edition)
- Noble, T., & McGrath, H. (2015). *PROSPER school pathways for student wellbeing. Policy and practices*. Netherlands: Springer
- Pennington, R. E. (2016). Teachers' perspectives: What support systems are needed to ensure effective implementation of social-emotional learning by classroom teachers? Unpublished Master of Education by research thesis. University of Sydney.
- Pennington, R., Yeung, A. S., Dillon, A., & Noble, T. (2018). Positive education: Theory, practices, and challenges. In L. A. Caudle (Ed.), *Teachers and teacher education: Global perspectives, challenges and prospects* (pp. 139-155). New York: Nova Science Publishers.
- Slee, P. T., Lawson, M. J., Russell, A., Askeil-Williams, H., Dix, K. L., Owens, L., Skrzypiec, G., & Spears, B. (2009). *KidsMatter primary evaluation final report*. Flinders University: Centre for Analysis of Educational Futures.
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes, 5*(1), 63.

FINAL RESEARCH REPORT

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