



stronger smarter
institute

Designing research and evaluation for a complex system: The Stronger Smarter Approach to Aboriginal and Torres Strait Islander education.

Cathy Jackson, Jana Andrade, and Dr John Davis



Introducing the Stronger Smarter Institute

Our Mission is

to create transformative
change in academic
outcomes for Aboriginal
and Torres Strait Islander
students.

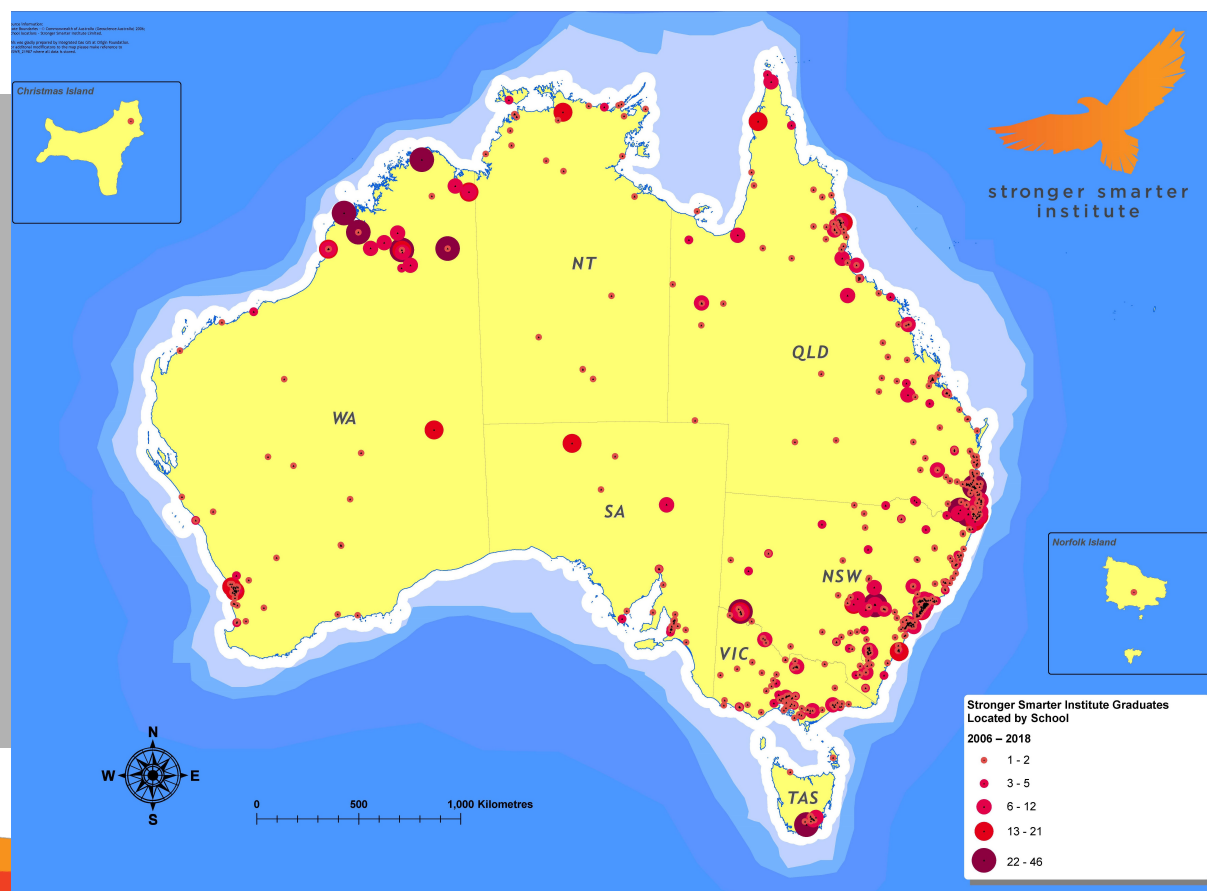




The Stronger Smarter footprint

Our footprint spans 12 years and

- Over 860 schools
- Over 3000 participants
- Across all states and territories





In our talk today, we will

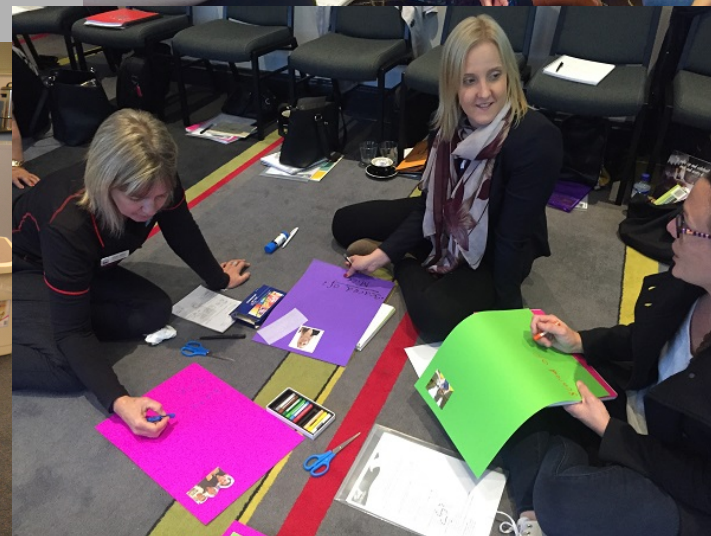


- Introduce our Stronger Smarter Leadership Program
- Introduce the Bunya Bunya cycle
- Look at Indigenous education as a complex problem
- Show how we have developed our logic models
- Discuss some results from our evaluations



Our programs

Our programs have been described as intense, stimulating, challenging, and full of humour and personal involvement.



The Bunya Bunya Cycle



We use the ***Bunya Bunya Cycle*** to deepen our Indigenous research *flow*. The flow, called '*Mimburi*' is a *Kabbi Kabbi* concept, specifically *Jinibara* knowledge.

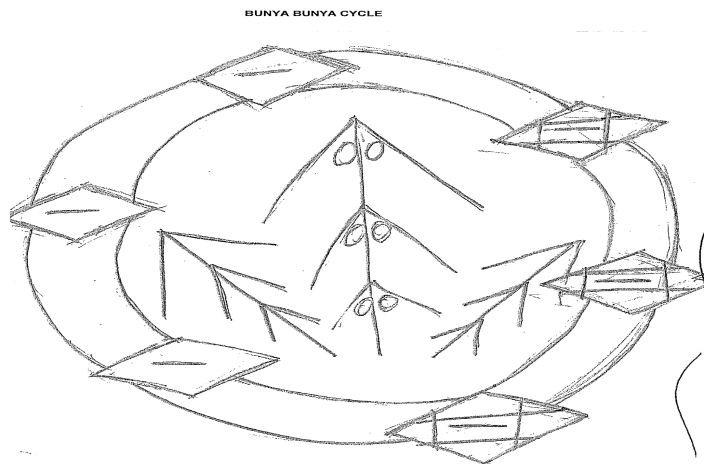


The Bunya Bunya Cycle

The Institute has adopted the Bunya Bunya Cycle (developed by Dr John Davis) to ground our research in Indigenous research methodologies and processes.

The Bunya Bunya Cycle is drawn here as representative of a body art design.

This is a cycle of knowing and understanding, being and doing.



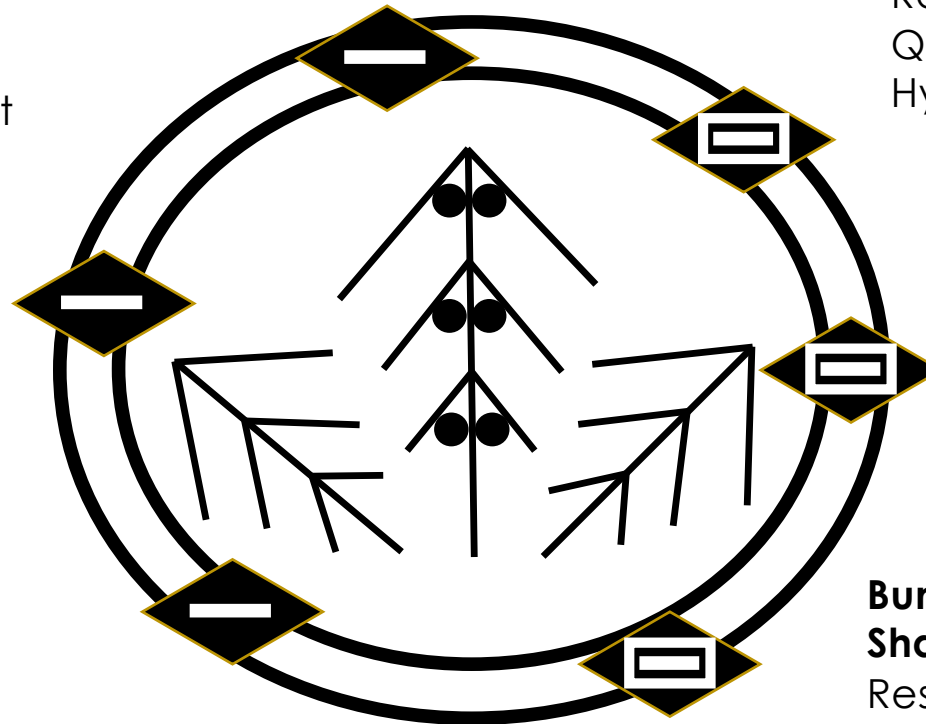


The Bunya Bunya Cycle

Bunya Growth:
Educational Context
– Literature Review

Bunya Roots:
Indigenous
Footprints and
Connections to
Country

Bunya Seedlings: the
Discussion of research; the
Significance of Research;
the Future of Research



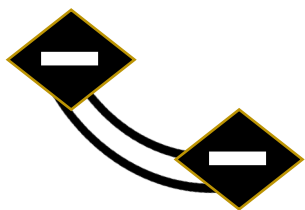
Bunya Tree:
Research Focus
Questions &/or
Hypothesis

Bunya Cone:
Research
Design – 'How
to' steps

Bunya Fruiting & Sharing: the Action of
Research; the Writing
of Research; the
Analyses



Bunya Bunya Roots – Connections to country



Bunya Roots:
Indigenous
Footprints and
Connections to
Country.

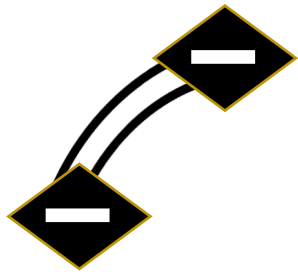
We recognise the
importance of local
Indigenous knowledge
and connections to
country in all lands where
our programs and
research take place.

The roots are where the
story is grounded.





The Bunya growth – educational context



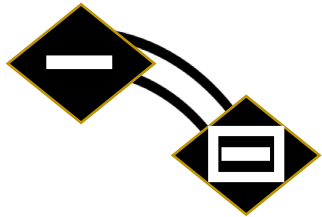
Bunya Growth:
Educational
Context –
Literature Review

The growth phase of the Bunya Bunya Cycle represents our understanding of the local contexts, the backgrounds, the previous research.





The Bunya Bunya Tree – Research hypothesis



Bunya Tree:
Research Focus
Questions &/or
Hypothesis

From the **Bunya Bunya** seed the **Bunya Bunya** tree grows.

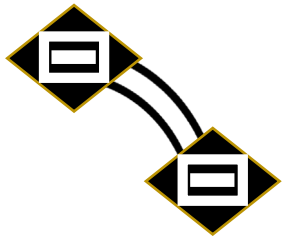
The tree takes a long time to grow – set it's roots and build.

When the tree has started to mature it begins to fruit – producing the **Bunya Bunya** cone.





The Bunya Bunya Cone – Research Design



First the cone itself; a large pod of seeds.

Secondly is the collective growth; the cones as collectives.

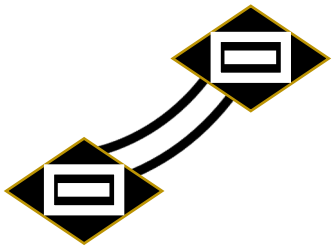
Thirdly there are the individual seeds which can be regrown and re-harvested.

Bunya Cone:
Research
Design – ‘How
to’ steps





The Bunya Bunya Fruiting – Action research



Bunya Festivals were times of exchange of cultural materials and intellectual property.

We use this to build into our research a strong sense of collective sense making. This is about how we relate, interact and connect with others, about yarning, and taking the time to listen and reflect

Bunya Fruiting & Sharing: the Action of Research; the Writing of Research; the Analyses





The Bunya Bunya Seedling – The future research



Bunya Seedlings:
the Discussion of
research; the
Significance of
Research; the
Future of
Research

There are two types of seed in the cycle – the growing seeds is drawn in the form of a diamond. The fruiting seeds are depicted with a cross hatch design.





Theory of change and logic models



Speaking truth to the powerless may be far more useful than the cliché of speaking truth to power.

Mathison, AES conference 2017



The Stronger Smarter hypothesis

Participation in the Stronger Smarter Leadership Program results in

an observable shift over time in behaviours linked to High-Expectations Relationships

Stronger Smarter Approach (SSA) in schools

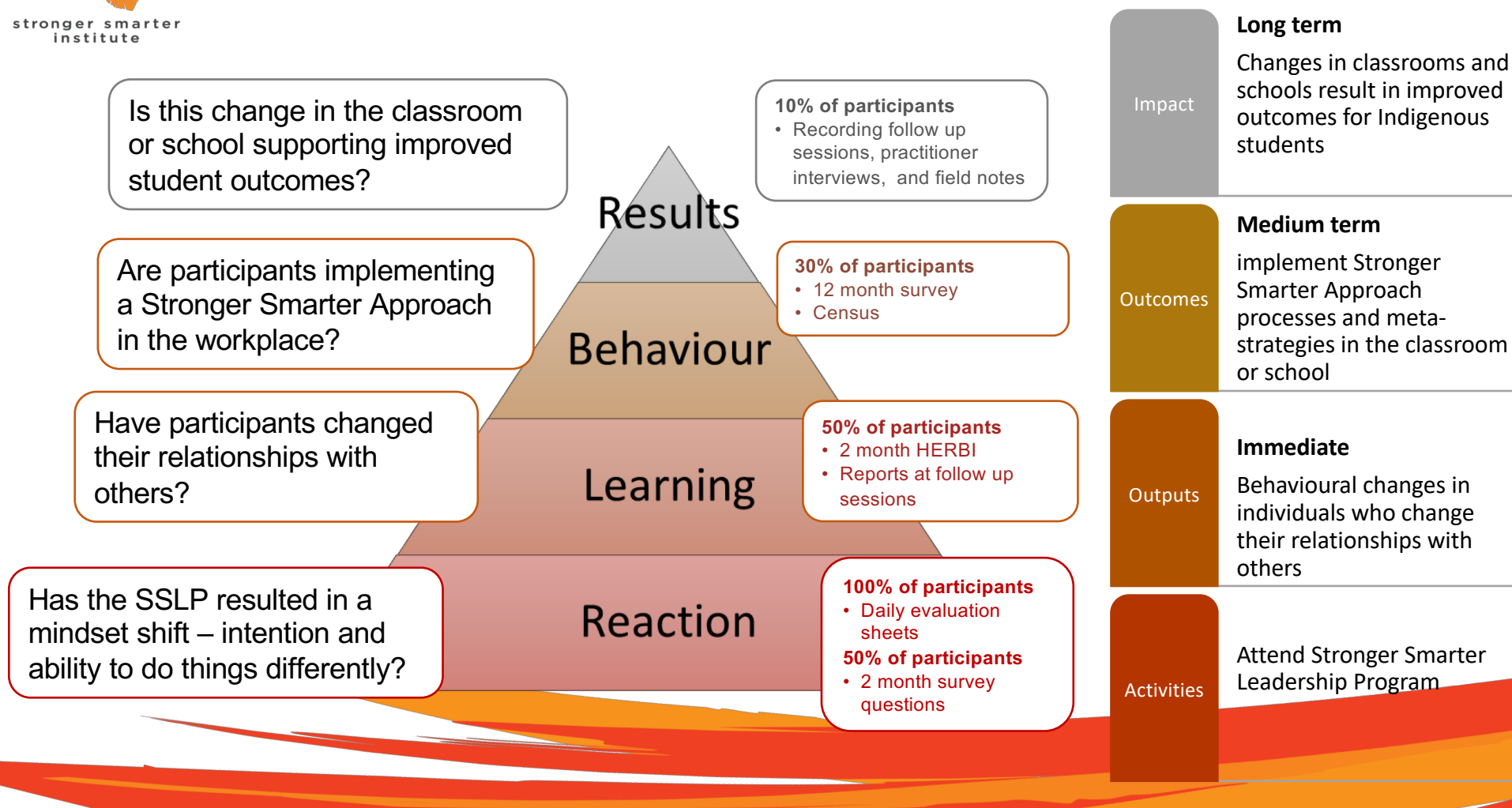
which are correlated with improved educational outcomes for schools and students

Stronger Smarter meta-strategies

- positive sense of identity
- embracing Indigenous leadership
- high-expectations leadership
- innovative school and staffing models

The Stronger Smarter Leadership Program will provide educators with the mindset shift and strategies and tools to implement a Stronger Smarter Approach - which in turn will lead to improved outcomes for Indigenous students

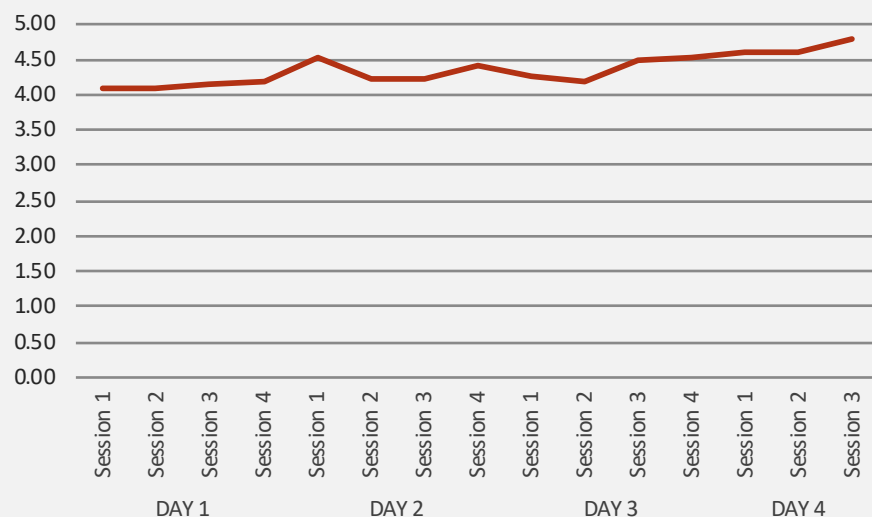
Our initial evaluation model





Evaluating the SSLP

Daily evaluations



This program has changed my life. Thank you for igniting my fire and inspiring me to be a leader!

This session was incredibly powerful and really brought home the power of stereotypes and assumptions.

Such an emotional, amazing, wonderful and inspiring week.

I feel really inspired to return to work with a focus.

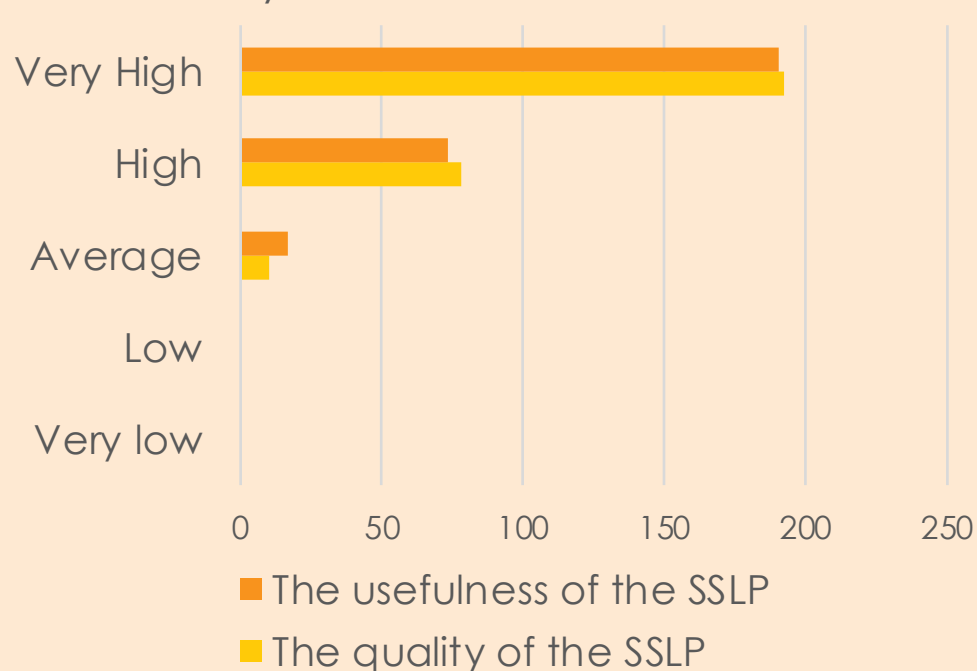
Confronting - I learnt a lot about myself.

Many light bulb moments - keen to put into practice the workplace challenges



Evaluating the SSLP - 2017

Quality and Usefulness of the SSLP



96% of respondents rated the quality of the program as high or very high

94% of respondents rated the usefulness of the program as high or very high

84% of respondents are 'promoters'

Data from 2017 follow up survey (n=280)



When does the Stronger Smarter Approach work best?



To answer this question, we need to understand

- How do the mechanisms of the Stronger Smarter Approach work?
- What impacts on how they are enacted in schools?
- What is the role of the educator?

We can't solve
today's problems
with the same thinking
that created them

Einstein

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Characteristics of Complex Challenges

- Been with us for a long time (pattern of reappearance)
- Many attempts to address it
- 'Pockets' of local success but low transferability
- Sustaining success is problematic
- Many interconnected variables that ebb & flow in their degree of impact
- Cause & effect is only understood retrospectively and is nontransferable

Gorringe & Spillman 2008

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Complexity



The strengths of a group — a belief that any group of people already hold the collective knowledge and wisdom to successfully meet the challenges they face



Collective sense making and decision-making processes —accessing the collective knowledge and wisdom of a group requires deep listening and reflection, time and focus, to remember and share stories of success and strength



Local approaches — the recognition of strengths and collective sense-making requires local approaches, multiple perspectives and multiple actions



Indicators — avoid too much emphasis on causal links, and use leading indicators that provide the early warning system

Realist evaluation

'Actors' –

participants make
their own decisions
about their actions

the intervention –

the SSLP/ the dilly
bag/ the Stronger
Smarter Approach

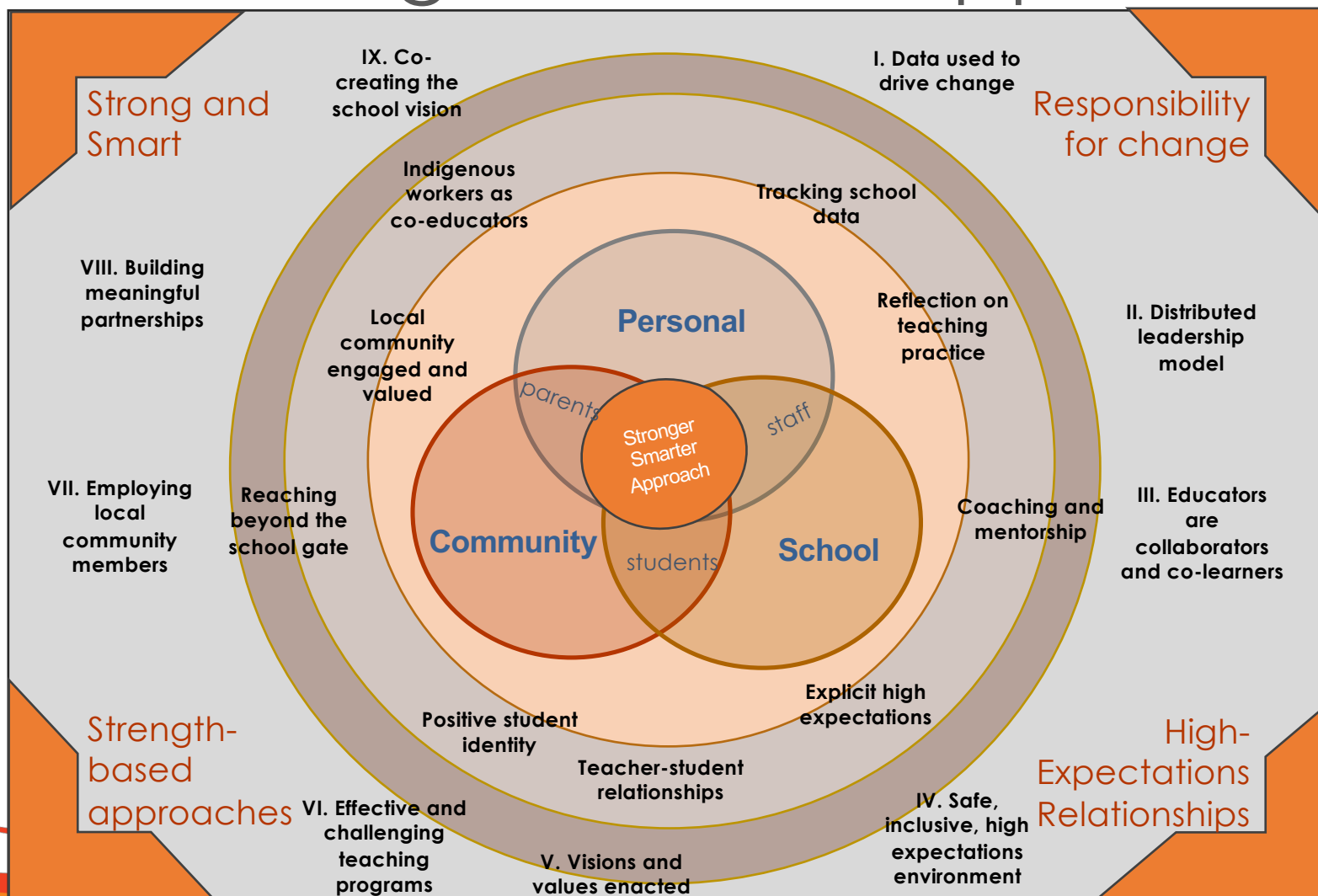
the context –

what will work best
for me in my school?
are the
circumstances right?

The influence –

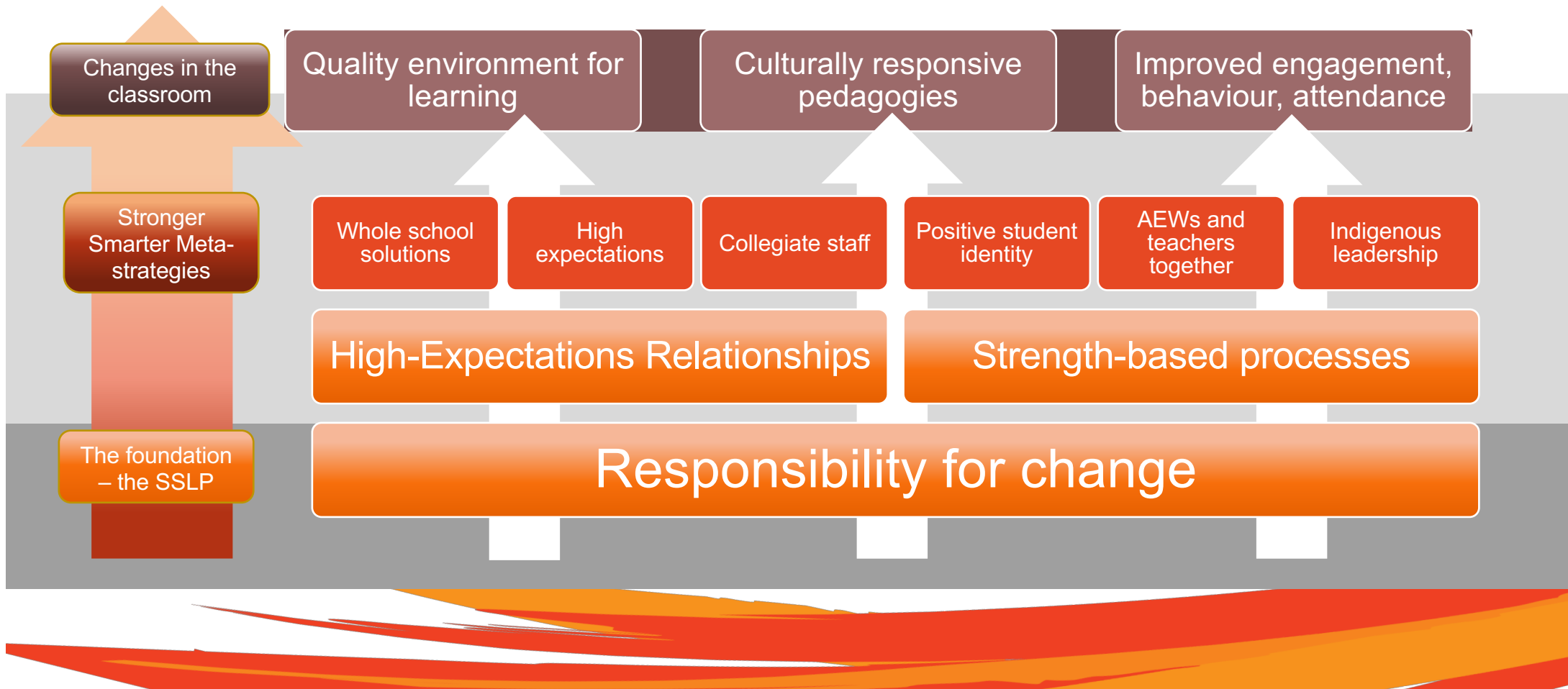
of other external
events or other
interventions.

The Stronger Smarter Approach





Stronger Smarter Approach logic



Theory of change and evaluation points



1

Stronger
Smarter
Leadership
Program

2

- Thinking differently
- More confidence
- Strength-based approaches

3

- Work with Colleagues
- Teacher-student relationships
- Relationships with parents and community

4

- High expectations classrooms
- Collegial staff culture
- Positive school community culture

5

6

7

- Completion of Year 12
- NAPLAN
- Further study and employment

Evaluation points

1. SSLP daily evaluation
2. Follow up survey
3. High-Expectations Relationships Behavioural Index (HERBI)
4. Practitioner interviews and field notes

5. Case studies
6. School data
7. Research projects and papers



Lead and lag indicators

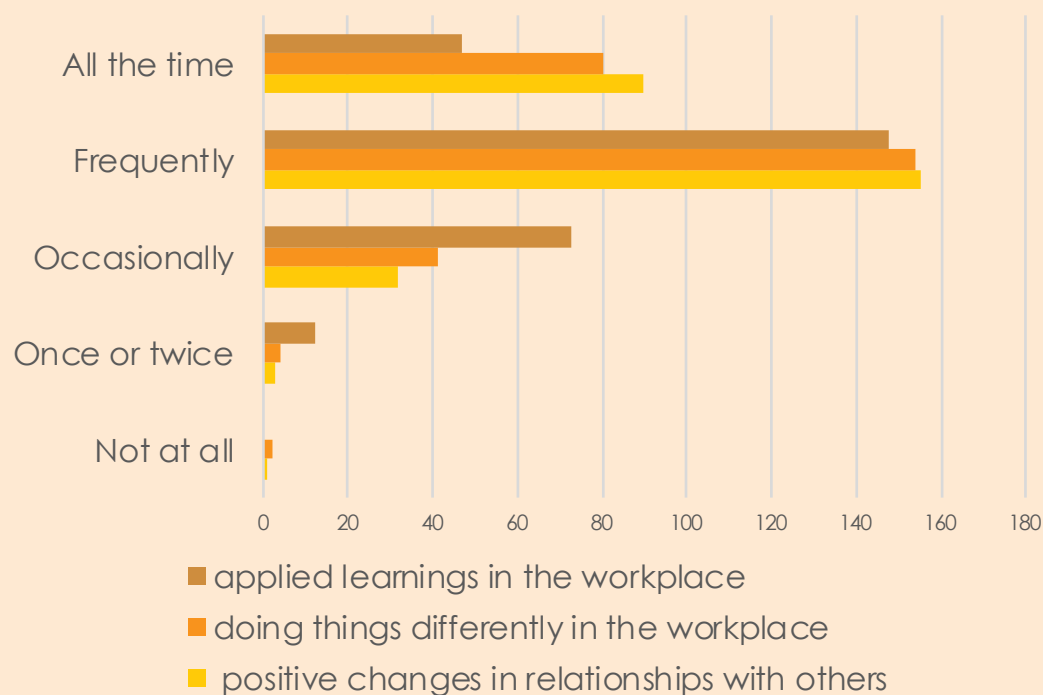
Lead indicators	Confidence	Engagement
Personal	<ul style="list-style-type: none"> ▶ staff morale ▶ staff retention 	<ul style="list-style-type: none"> ▶ commitment to change
School	<ul style="list-style-type: none"> ▶ student motivation, connectedness, and relationships ▶ low suspensions/ expulsions ▶ high retention rates 	<ul style="list-style-type: none"> ▶ high attendance ▶ low unexplained absenteeism, student disciplinary absences
Community	<ul style="list-style-type: none"> ▶ school enrolments ▶ parent connectedness ▶ what parents think of the school 	<ul style="list-style-type: none"> ▶ involvement of parents in the school ▶ partnerships ▶ number of Indigenous staff employed at the school/ involved in the school
Lag indicators – Student Outcomes		
<ul style="list-style-type: none"> ▶ Graduation rates ▶ Readiness for next level of learning (high school/further study/employment) ▶ Academic outcomes 		



Responsibility for change



Did we motivate you?



99% of respondents say they have been motivated to make changes

83% of respondents are motivated to do things differently in the workplace 'frequently' or 'all the time'

87% of respondents are motivated to make positive changes to relationships with others 'frequently' or 'all the time'.

Data from 2017 Survey (n=280)



Workplace practice

Impact of the Stronger Smarter Approach on personal activities



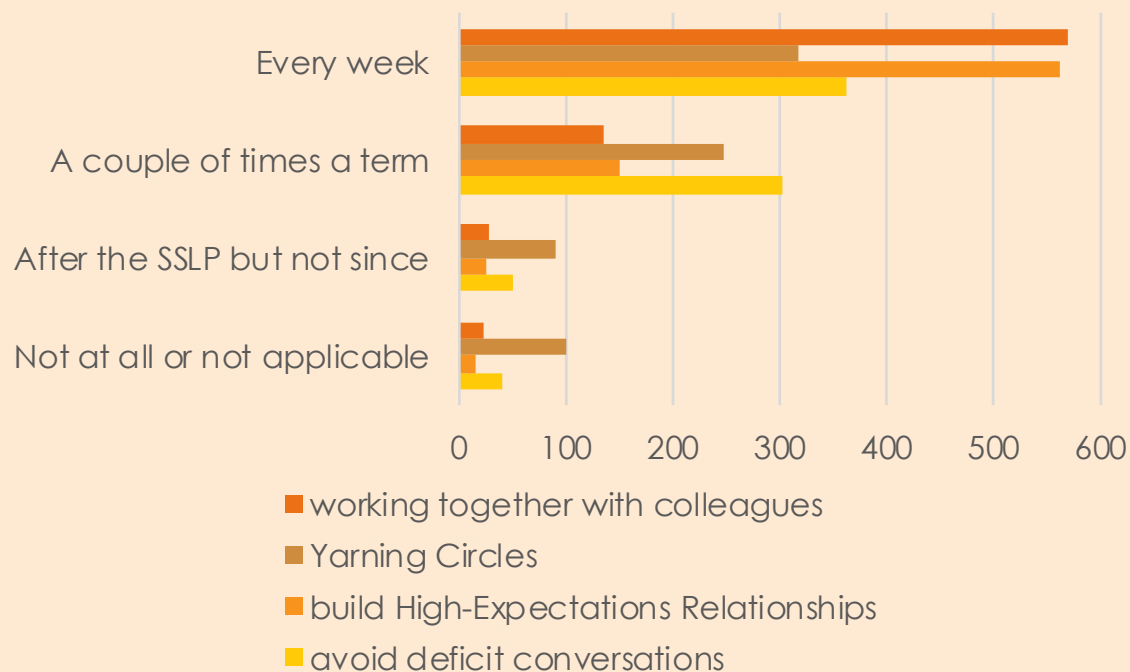
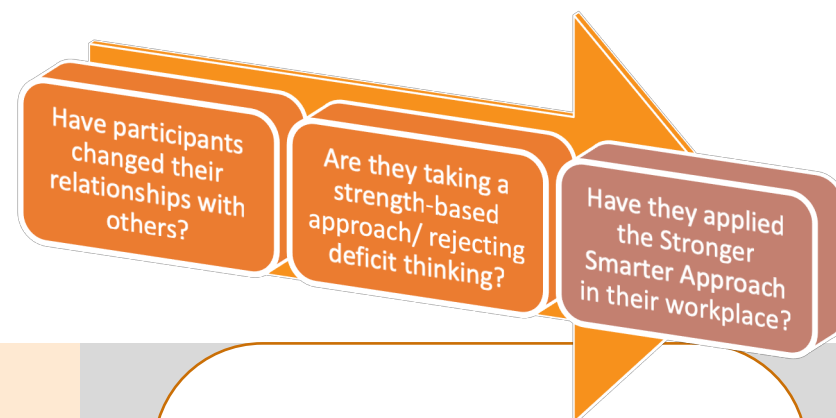
80%

of respondents say their Stronger Smarter training continues to have considerable impact on their relationships and workplace practice.

Data from 2018 Stronger Smarter Census



Relationships with colleagues



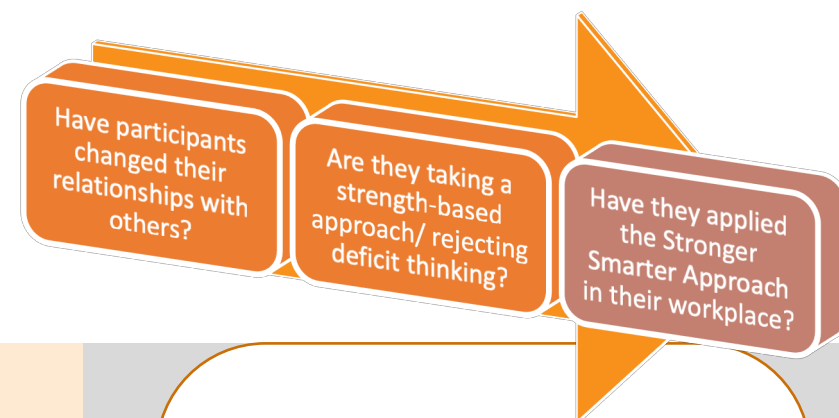
75%

of respondents say that they continue to actively build strong working relationships and High-Expectations Relationships with their colleagues every week.

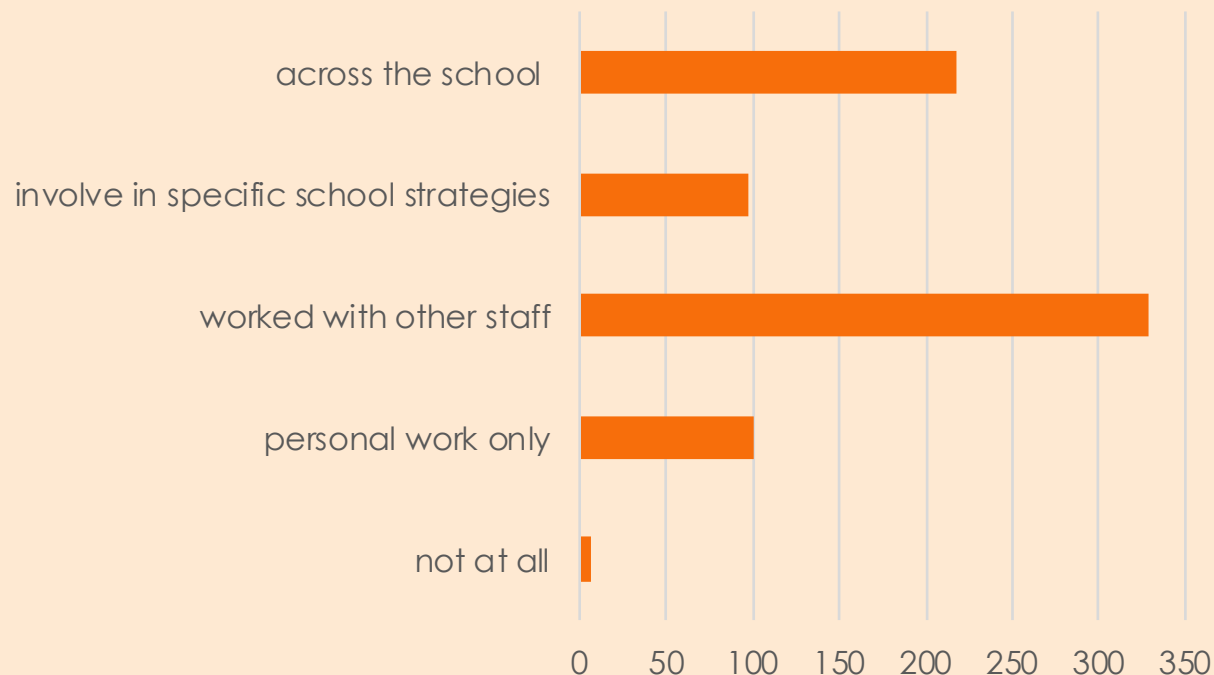
Data from 2018 Stronger Smarter Census



Extent of personal implementation



Personal implementation of Stronger Smarter Approach



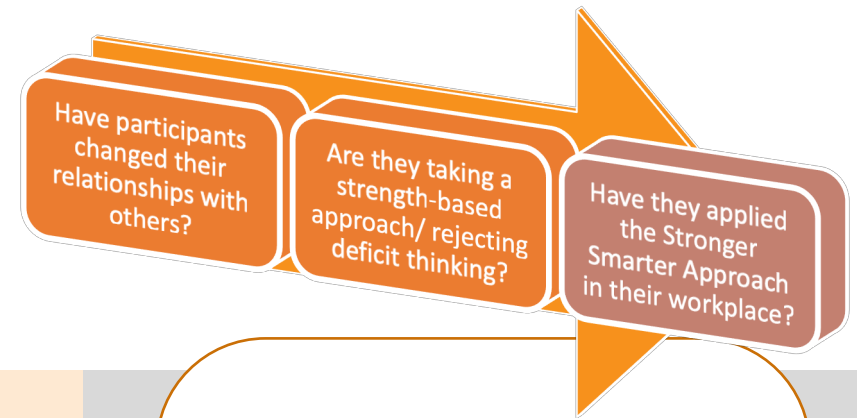
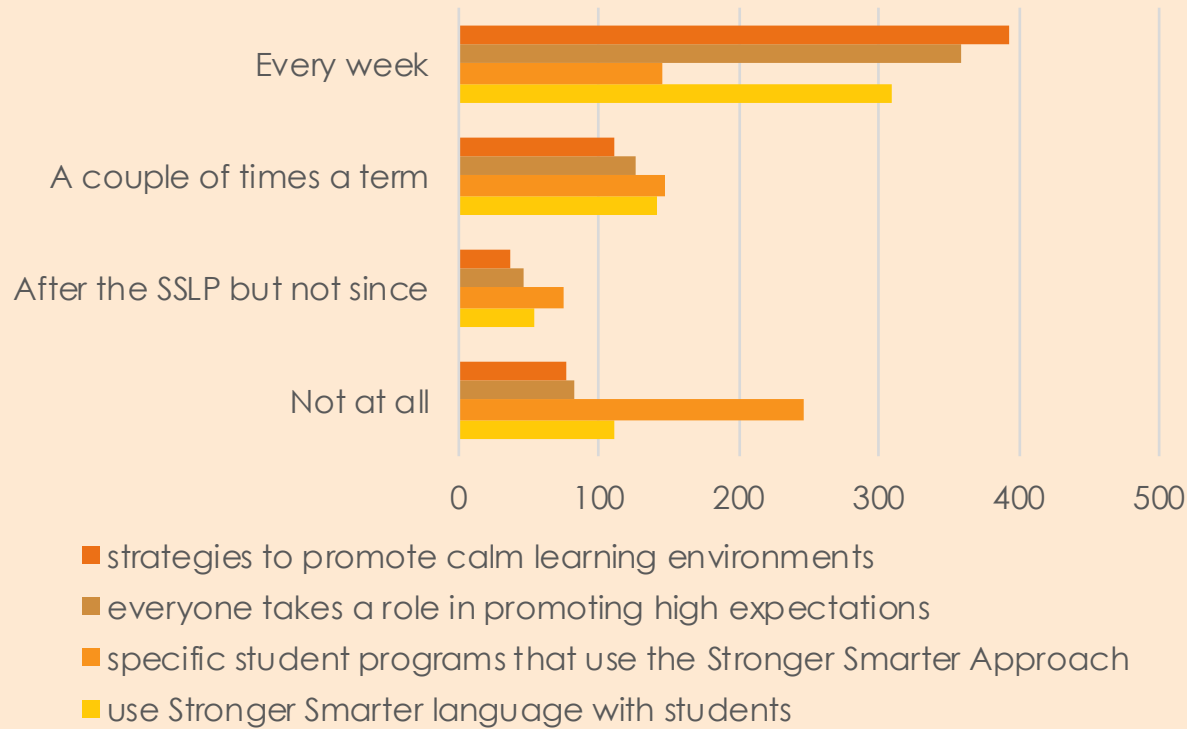
85%

of respondents say they have taken the implementation of Stronger Smarter strategies beyond their personal workspace to work with others.

Data from 2018 Stronger Smarter Census



In the school and classroom



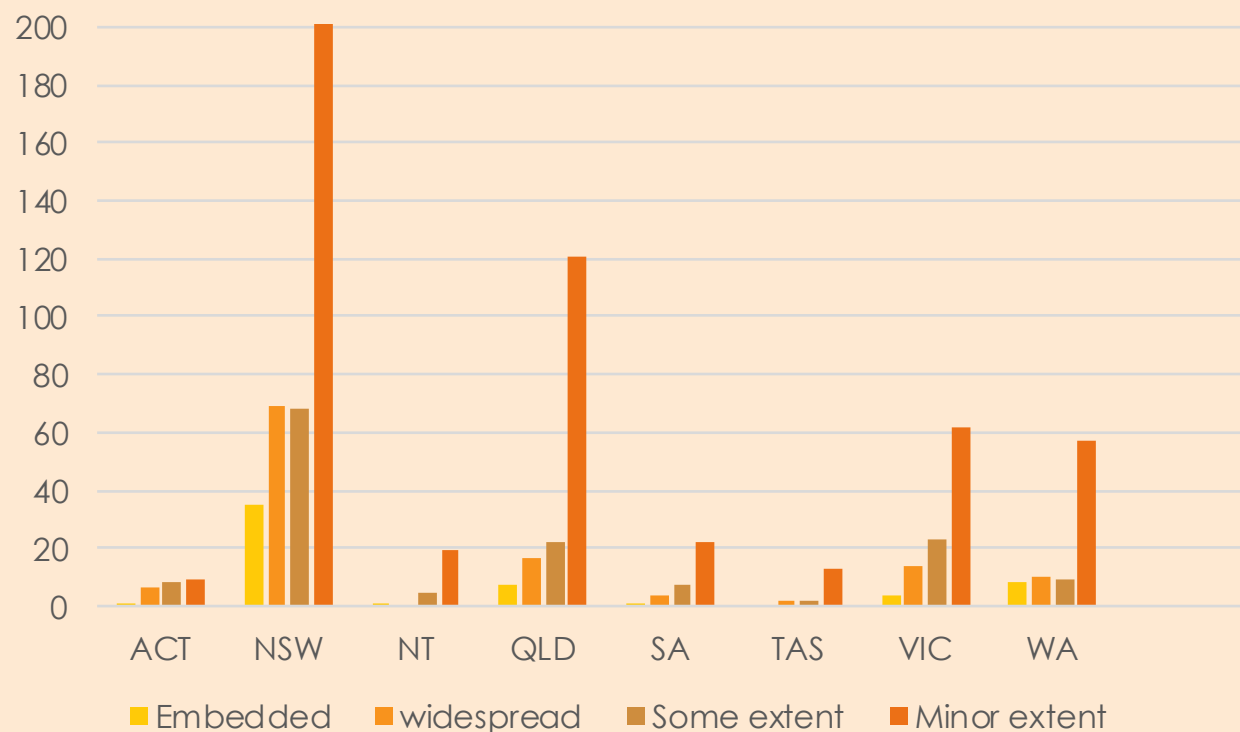
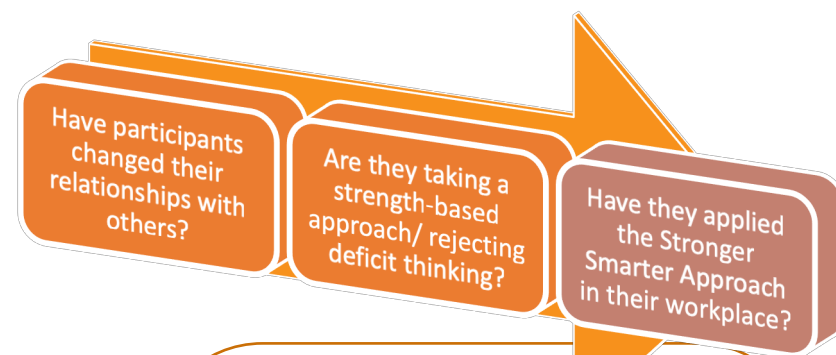
50%

of respondents say that Stronger Smarter strategies of high expectations and supportive learning environments are used across their school every week.

Data from 2018 Stronger Smarter Census



Stronger Smarter Approach in Schools



Over 800

Schools are reporting that the Stronger Smarter Approach is used in their school.

Of these 179

Are reporting that the Stronger Smarter Approach is widespread or embedded.

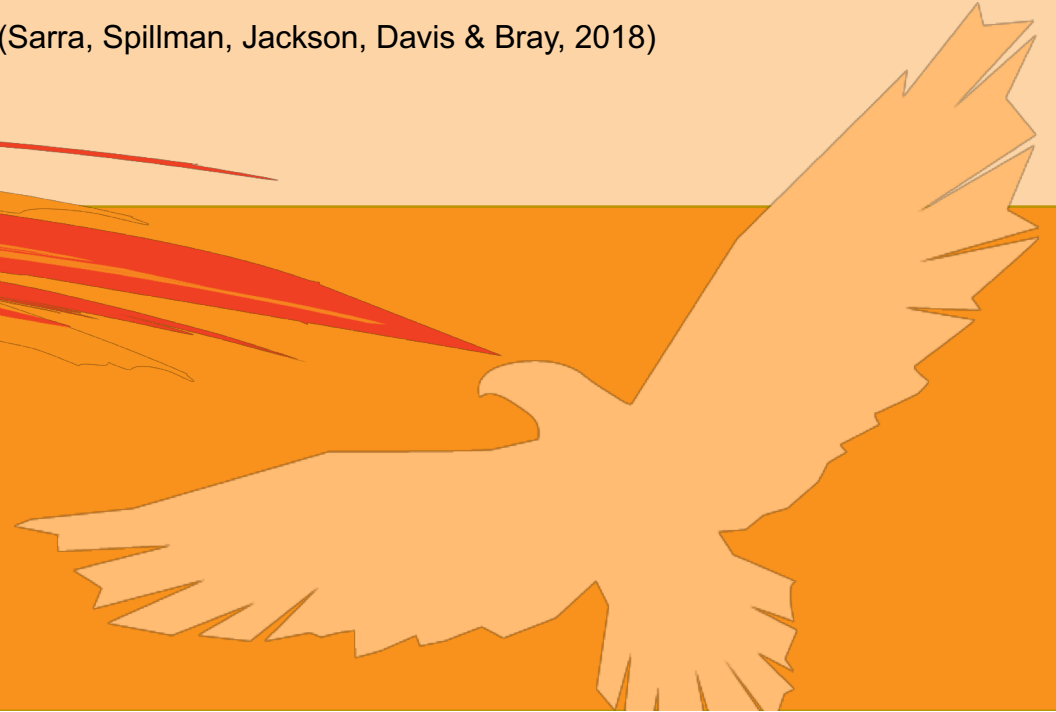
Data from 2018 Stronger Smarter Census



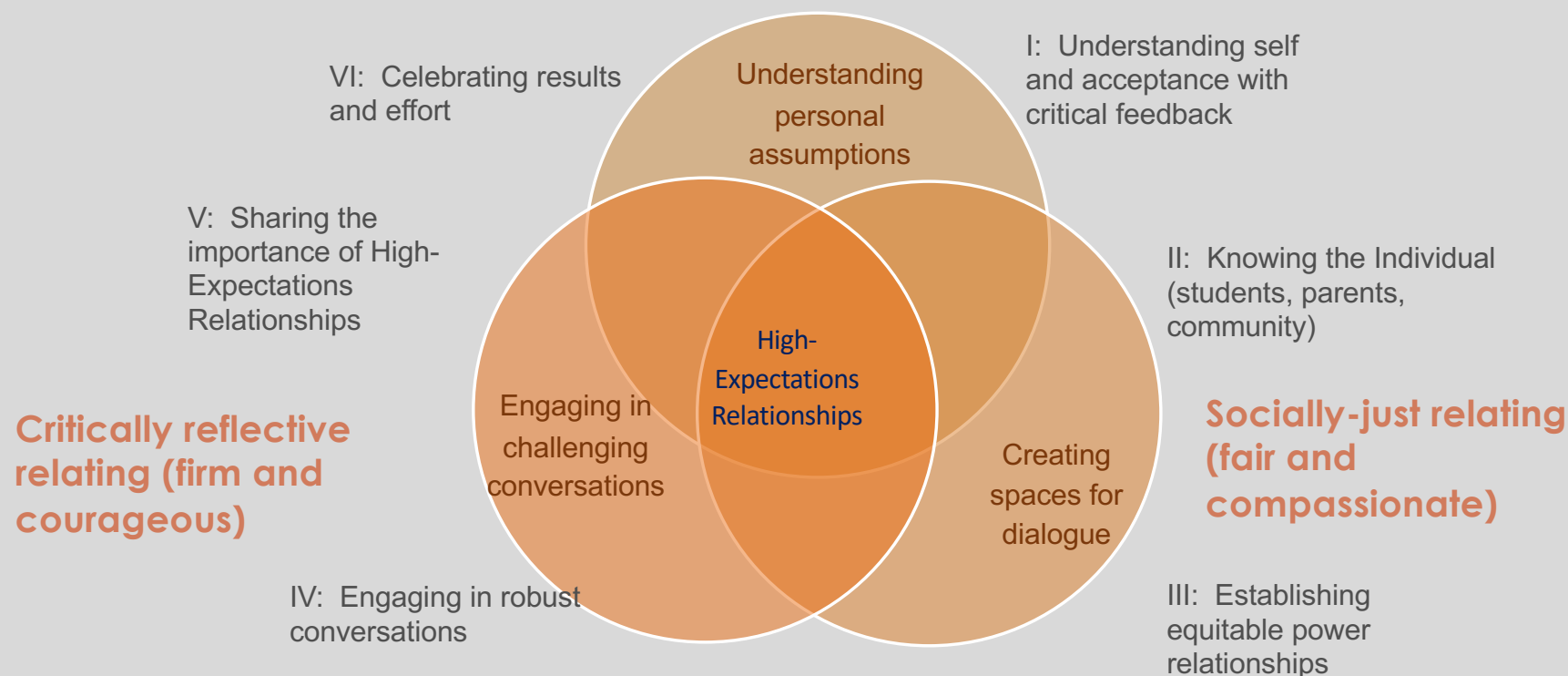
The High-Expectations Relationships Behavioural Index



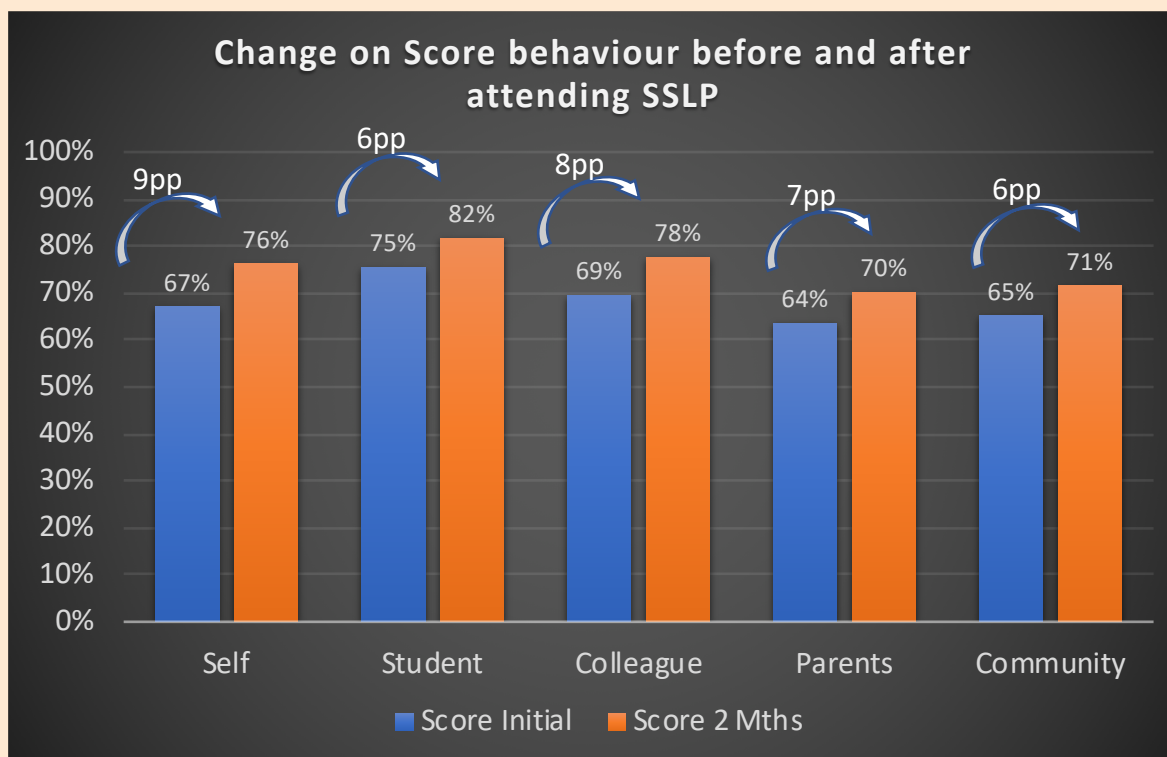
A High-Expectations Relationship is a two-way relationship that is both supportive and challenging (Sarra, Spillman, Jackson, Davis & Bray, 2018)



Framework for the High-Expectations Relationships Behavioural Index (HERBI)



HERBI – Pre and Post data



Following the SSLP, the greatest changes are in the personal sphere and relationships with colleagues.

However, relationships with students start from a higher point in the scale.

*Data from 2016-2017
participants (n=396 for self)*



HERBI – areas of change

Personal

- Greater understanding of impact of personal assumptions
- More likely to apply the elements of High-Expectations Relationships
- More likely to seek feedback from others

Colleagues

- Creating opportunities to share more with colleagues
- Talking to colleagues about High-Expectations Relationships and challenging deficit conversations

Students

- Creating opportunities for students to discuss views
- Discussing challenging topics with students
- Talking to students about High-Expectations Relationships
- Co-developing goals with students

Parents

- Co-developing goals with parents
- Talking to parents about high expectations

Community

- Talking to the community about high expectations
- More involved in community events
- Creating opportunities for the community to be involved in the school



The Stronger Smarter Approach in schools

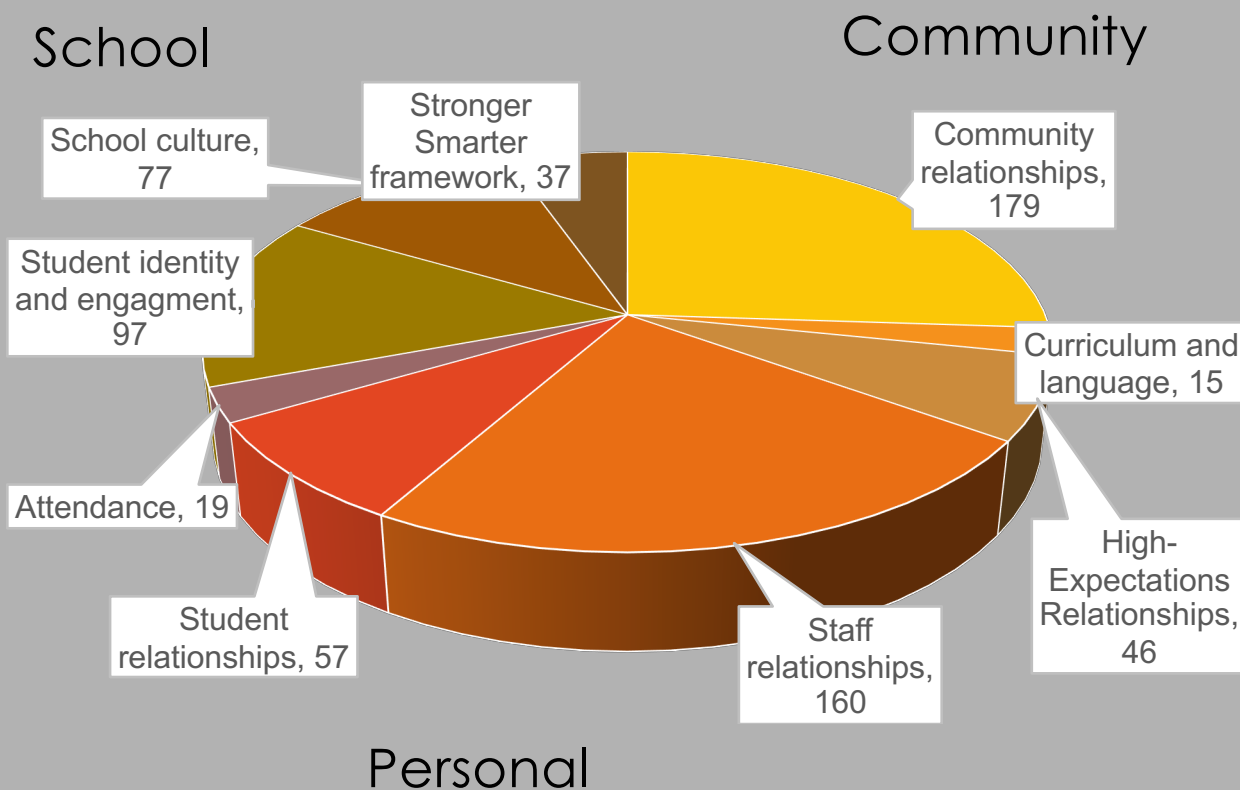
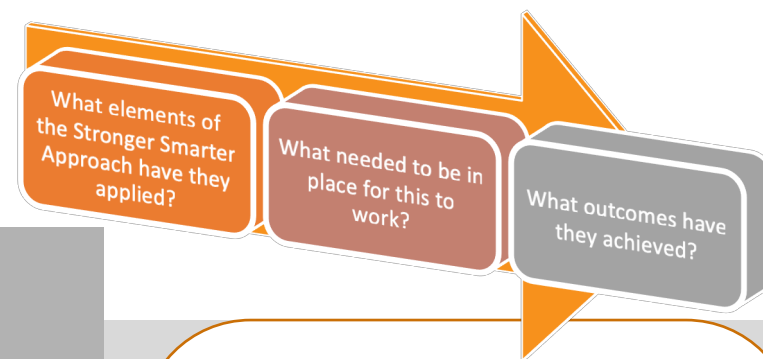


If you do the little things right they end up being the really big things – SSLP alumni





Workplace challenges



90%
Of respondents reported that they completed a workplace challenge.

39%
Of respondents reported that they went on to set themselves other workplace challenges.

Data from 2016-2017 participants (n=687)



Regional Victoria

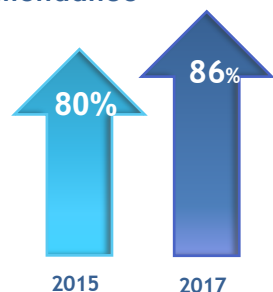
Engagement with SSI since 2015



"Our kids are safer, happier, super motivated and love the way we teach. Now that's what we call Strong, Smart and Deadly."
Principal

Number of SSLP Graduates:	29
Total Number of Students reached:	390+
Indigenous students	24%

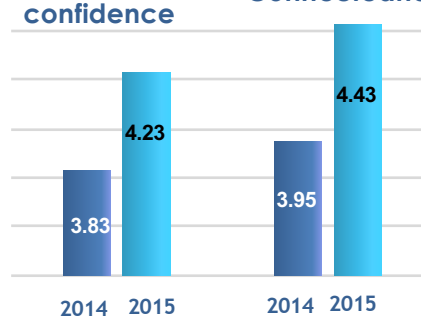
Indigenous student attendance



Improved school environment

Learning confidence

Connectedness



Improved learning environment

Reading



Improved learning



North Queensland

Engagement with
SSI since 2015

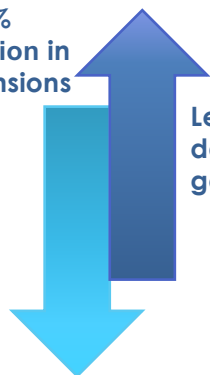


"As a Stronger Smarter school, we promote the ability for our community to be 'Strong in the heart' and 'Smart in the head'.
Principal

Number of SSLP Graduates: 4

Total Number of Students reached: 470+
Indigenous students 27%

60-70%
reduction in
suspensions



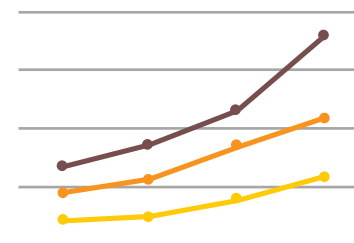
Learning
days
gained

Within a term –
suspensions down



Improved engagement,
higher attendance

Academic Results



Internal data show
improvements within a
term

In conclusion



- The SSLP recognises Indigenous education as a complex system and provides a response based on local, strength-based approaches and the agency of educators.
- The evaluation model for the SSLP needs to involve logic models, a recognition of different pathways, and a variety of evaluation points.
- Our data shows that the SSLP is changing how educators think and act in the classroom ... our next step is to look deeper into the causal pathways of the Stronger Smarter Approach.



Find us at



- strongersmarter.com.au – position papers and school stories
- strongersmarterplm.edu.au – a free online module with an introduction to Stronger Smarter