



REVIEW TO INFORM A BETTER AND FAIRER EDUCATION SYSTEM

SUBMISSION TO THE EXPERT PANEL

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1. Introduction

The context

This submission is a summary of and extension to Knowledge Society's oral submission to the Review panel on [REDACTED]. The submission is based on our experience in Australia designing and delivering whole school system reform and school improvement initiatives since 2016. It is based on our experience developing and implementing *Catalyst*, designed for Catholic Education Canberra Goulburn as well as the work we are now doing for the *Western Australian Department of Education in the Centre for Excellence in the Explicit Instruction of Literacy*¹. In addition, this submission reflects lessons we learnt when we recently led a delegation of Australian educators to the United Kingdom to learn more from England's achievement in improving their educational outcomes and, in particular, in dramatically improving their reading outcomes, moving to fourth place, ahead of Finland, in the International PIRLS rankings.

Recent announcements on Initial Teacher Education

We also wish to affirm at the outset that we are delighted with the content and ambition of the recent Scott Report on Initial Teacher Education reform and we support all the recommendations and believe they should frame recommendations for school improvement. The four areas identified for new teachers should also be knowledge and practice the Commonwealth expects all States to ensure is provided to all current teachers through professional learning programs and other initiatives. The days of principal autonomy need to end. They have been one of the principal reasons for the decline in educational standards. State governments and other education systems and schools should be required to be purveyors and promoters of evidence-based practice in order to receive full government funding.

This submission

This submission will cover:

(i) *targets and reforms that should be included in the next NSRA to drive real improvements in student outcomes.*

¹ We have also been very impressed with the achievements of the South Australian Literacy Guarantee, the Kimberley Schools program and our own EDvance program. All of these programs have been an inspiration in the development of *Catalyst* and the Centre for Excellence in the Explicit Teaching of Literacy programs.

(ii) How data collection can best inform decision-making and boost student outcomes

(iii) How to ensure public funding is delivering on national agreements and that all school authorities are transparent and accountable to the community for how funding is invested and measuring the impacts of this investment.

Our submission uses the program we designed and were implementation partners for *Catalyst*. This is a good example of whole system reform in Australia. We believe this is the most useful, real world example for the NSRA Review team to examine in determining options for targets and reforms that can be required and expected as part of the next NSRA.

Catalyst is a unique program internationally and is currently being examined by systems in the United Kingdom and United States to inform system-wide school improvement programs in various Multi-Academy Trusts and Charter school networks. Dozens of systems and schools around Australia have visited it to learn about how it was designed, commissioned and is being delivered, managed and evaluated.

Appendix B. is the powerpoint presentation on Catalyst that was presented on [REDACTED] and is a background document to this written submission.

The NSRA project team should seek the most up to date data on the impact of students and teachers of Catalyst directly from the Catalyst team at Catholic Education Canberra Goulburn.

2. Background - our role as Catalyst design and implementation partner

Our role

Knowledge Society developed the bespoke Catalyst program for Catholic Education Canberra Goulburn over two years prior to implementation in 2021. Our roles was:

- design of the technical solution (professional learning program for teachers and leaders) in liaison with the Executive Director
- pre-implementation co-design of the solution with Catholic Education Canberra Goulburn executives (direct reports to the Executive Director)
- pre-implementation consultation and some co-design with principals across the system
- commissioning all providers based on a clear specifications matrix that would not sacrifice quality and fidelity but would allow us to achieve scale

- design, development and delivery of many of the enablers such as the 8 online units and the facilitation guides, leader programs, systems and processes to run the rollout successfully
- ongoing design monitoring and evaluation support

Design of the technical solution

An important note to make on the design of the professional learning (what we call the technical solution, the intervention) was that it was designed with a very high fidelity to several evidence-bases:

1. The Science of learning
2. The Science of Reading
3. The literature around what professional learning has an impact in the world of teaching (ie must have the right combination of theory, demonstration of practice, opportunity for practise, and in classroom coaching)
4. Implementation science (studies on dosage, fidelity rollout, eliminating x factors and factors which won't scale)

Furthermore our design required high scale. We were required to deliver some elements to all 56 schools in year 1 and other elements to 56 schools over 3 years. This required us to absorb nearly all (perhaps 80%) of the professional learning providers in the market who function at a high level of fidelity.

Resources applied

We have had a team of 3-6 engaged on this project alongside Catholic Education Canberra Goulburn for 6 years. It has been a very deep and significant partnership. At various times the following skills were applied to the program development and delivery:

- Human centred design
- Program management
- Research and evidence-based analysis
- Applied economics
- Implementation science
- Codification
- Procurement and commissioning
- Business case development
- Online unit curriculum development and video production
- Evaluation and monitoring design

This provides something of a model for governments to consider when seeking to replicate this program's success. Having a partner who could recruit and provide all of these dimensions of expertise has been critical to the development of Catalyst.

Ongoing rollout beyond Canberra Goulburn

Fortunately, the Catholic Education Canberra Goulburn team has licensed the IP we developed on their behalf for further use in Australia. We are continuing to develop new elements in the program (including Getting Reading Right, Clinical leadership of reading improvement, more resources for leaders, better classroom management interventions).

We will draw on this bank of pre-designed elements as we roll out similar programs around Australia. We are currently commissioned to work with twenty schools in Western Australia (intended to become 60 in the near future) in the *Centre for Excellence in the Explicit Teaching of Literacy*. In addition we are working on a program with Melbourne Archdiocese Catholic Schools for approximately 25 schools in the Western Region. At the time of writing we are working with a number of government schools on the Mornington Peninsula (fully funded by the Mornington Peninsula Foundation). We have contributed to leadership development courses for the Department of Education in Queensland and are in dialogue with two other Catholic Diocese which collectively represent a further 230 schools. Knowledge Society has set ourselves a target of transforming 1000 schools in total Australia with a Catalyst style approach over the next 5 years.

Availability of high fidelity, science of learning informed professional learning providers

The NSRA expert panel should know that we judge the current high fidelity capacity in the Australian market to deliver an program of the quality and fidelity of Catalyst would be approximately a maximum of 250 schools a year. There are 9,500 schools in Australia so if we don't increase delivery capacity somehow, it will be a very slow reform initiative taking more than 20 years. We have further ideas about how this capacity could be expanded quickly should the NSRA like to hear more about this.

3. Key recommendations

This session contains recommendations under the following headings:

(i) targets and reforms that should be included in the next NSRA to drive real improvements in student outcomes.

(ii) How data collection can best inform decision-making and boost student outcomes

(iii) How to ensure public funding is delivering on national agreements and that all school authorities are transparent and accountable to the community for how funding is invested and measuring the impacts of this investment.

Targets and reforms that should be included in the next NSRA to drive real improvements in student outcomes.

The following are important recommendations we would make in terms of targeting reform for the National School Reform Agreement. In Summary they are:

- focus reform on practice change in classrooms
- Ensure a good theory of change
- The quality of school improvement program design is directly correlated with the efficacy of the instructional model that underpins it
- The best action we can take to improve the wellbeing of the nation's students is to improve teacher capacity to manage classrooms to ensure calm, ordered and positive learning environments.

Two other areas are also included. These are:

- Targeting students with additional needs
- Thinking about the implications of cognitive load theory in the context of school improvement

Focus reform on practice change in classrooms

Firstly, our view on targets is that the focus should be on targets for practice change in all classrooms in all schools in Australia. Knowledge Society believes that the most effective way to improve the impact of government services in education, health and community wellbeing is to align practice on the ground with the evidence of what works. We believe the Australian reform effort should develop targets should focus *on the nature of the practice change, the fidelity of the practice change to the evidence of what works* and the *reach of the practice change* across the country.

There are 9,500 schools in Australia, approximately 6,500 primary schools and 3000 high schools, across all sectors, and targets should be set for the rollout of the agreed

practice change and the fidelity of practice to be achieved over time. The focus on outcomes is not efficient because, as program logic has always

Sufficient resources should be put into good program design. The NSRA can learn from how well the investment in quality design, co-design and implementation science has paid off for Catalyst in terms of implementation success as well as classroom impact and the early results are very promising (the NSRA Expert Panel should get the full, up to date results of the program direct from the Catalyst program team at Catholic Education Canberra Goulburn).

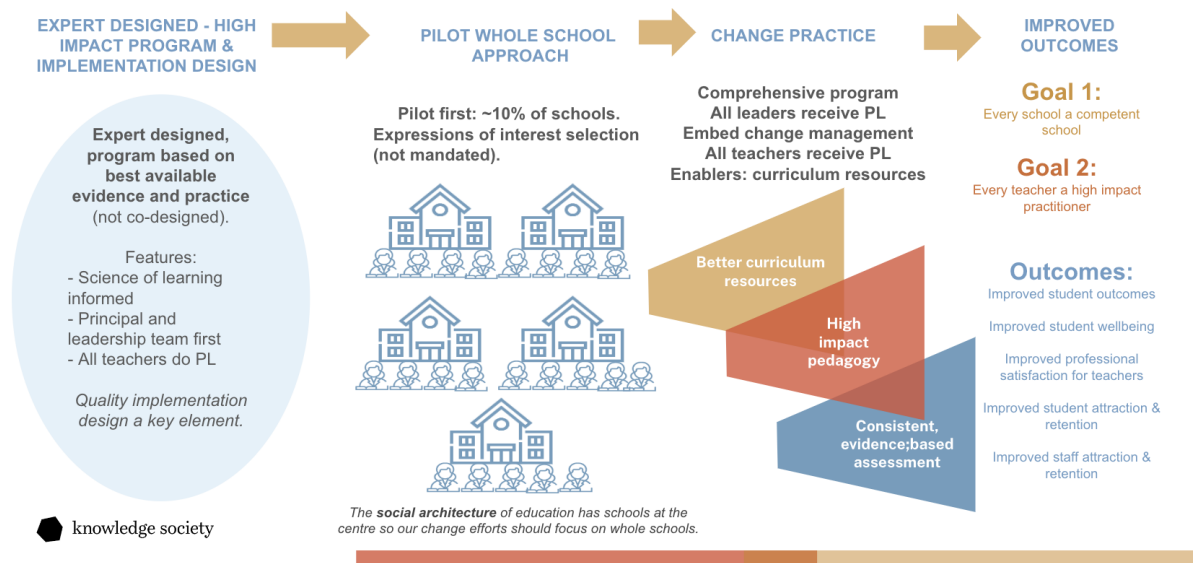
Education funding should be directed towards and tied to the implementation of well designed improvement programs like Catalyst. We know that hundreds of millions are being spent in schools on school improvement and professional learning programs that are not well designed. High investment programs must have well researched and evidence-based theories of change that make logical sense and are realistic when applied at scale. Student learning outcomes are invariably achieved through whole school approaches that focus on improving classroom practice across all domains: classroom management, curriculum resources and lesson planning, pedagogy, assessment and intervention.

In addition, perhaps it should be part of the agreement that the Commonwealth approve or validate, or give this task to the Australian Education Research Organisation. Without good program design including getting the dosage of Professional learning right, program support in curriculum development, pedagogy uplift and correct assessment protocols as well as implementation planning and fidelity monitoring, student results will not improve, or at least not improve commensurate with the investment. We have significant concerns that State Governments in particular are exceedingly naive about what implementation requires on all these fronts.

Ensure you have a realistic theory of change

In addition to the results chain, we developed a theory of change for the program, a later version of which is outlined below. It has proven to be realistic.

How to improve learning outcomes at the system level



The quality of school improvement program design is directly correlated with the efficacy of the instructional model that underpins it

Very early on the Catalyst project team identified that all of the schools that were experiencing ‘better than postcode outcomes’ were implementing systematic phonics programs, with explicit teaching including daily review, ensured all staff were deeply knowledgeable about the Science of reading and the science of learning, implemented highly effective classroom management techniques and were moving toward whole school approaches to curriculum and lesson planning, rather than privatised practice. It was a very clear pattern. This caused us to develop all of our future interventions with these things at the core. The evidence is becoming even clearer that these factors are dramatic drivers of school improvement measured by improved student learning outcomes.

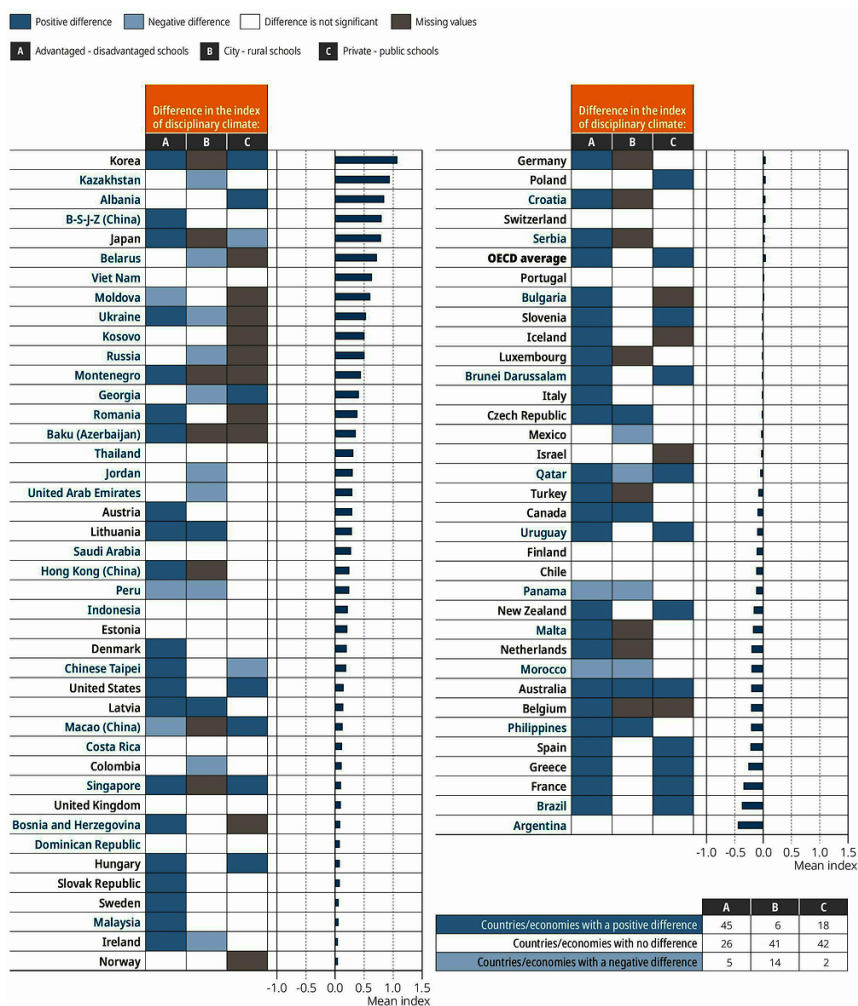
One of the things the NSRA Review should require in the agreement is a commitment from all systems to embed in all of their Professional learning, leadership development, annual school improvement planning cycles, principal expectations of performance, an instructional model underpinned by cognitive science. The sooner it is the Clarity on a new cognitive load theory informed instructional model to be applied in every school. This is the most important lever of educational improvement that the Commonwealth Government has.

The instructional model needs to provide schools and teachers clarity on what good looks like in, at a minimum, the following domains: classroom management literacy instruction and ongoing improvement, numeracy instruction and ongoing

improvement, general explicit teaching and guaranteed viable curriculum for all students (as opposed to the current standards only curriculum documents).

The best action we can take to improve the wellbeing of the nation’s students is to improve teacher capacity to manage classrooms to ensure calm, ordered and positive learning environments

A very important point for the NSRA Review to understand and highlight in its public statements is that wellbeing is that currently well being is being undermined by Australia is 69th out of 76 nations in terms of disruptive classrooms in the OECD.



Australia 69/76 countries in OECD, (PISA, 2018) - 'Index of Disciplinary Climate'.

When it comes to the wellbeing of the nation’s students, the best thing we can do is have calm, ordered and predictable classrooms. The levels of disruption and complexity in our schools and classrooms is unacceptable for all students but particularly for those with anxiety, ADHD or ASD. Everyone benefits from well run

classrooms led by teachers who have been well trained and have whole school approaches which are effectively applied in each classroom.

Thinking about cognitive science and school improvement

Some of the other key ideas that we have learnt from the study of cognitive science-informed school improvement programs in Australia and overseas that are relevant for the NSRA team to examine are:

- Cognitive science teaches us that attention and knowledge are the critical currencies for schools to understand they need to manage to achieve improved educational outcomes. Classroom teachers need to focus and manage attention on learning in classrooms, and leaders and administrators need to focus and manage teacher attention on learning in schools, and system leaders need to manage and focus their principals' attention on learning in their role in schools.
- Attention - our teachers, leaders and system leaders are not trained to manage attention. They are not provided with the knowledge, practice and support to manage classrooms and manage attention. They do not know this is the ultimate driver of learning outcomes - attention focused on learning, and time on task. (Nor has this thinking made its way into understanding the role of devices in schools and classrooms, not just phones but laptops. They distract attention most of the time).
- Knowledge - Our schools and teachers, unlike in pre-1990's Australian education, are no longer provided with the curriculum resources including text books, work books and lesson plans, to ensure they offer students a guaranteed and viable curriculum. Our contemporary lesson development methods (including a large proportion of downloads from pinterest, are not sufficient to ensure knowledge is built over the years in schooling in a cumulative and sequential way. The need to provide our teachers and schools with better, well designed, ambitious, knowledge-rich lesson resources is urgent. Models for achieving better curriculum resources have been identified in the Grattan Reports on this subject and include:
 - Whole school collaboration in curriculum development with quality checked at whole school level for ambition, knowledge-richness, coherence and cumulative development (Grattan model)
 - Access to more and better curriculum resources through Commonwealth, State and system leader encouragement of better textbooks from publishers and higher quality knowledge rich resources from other sources.

Targeting students with additional needs

If you want to target students in disadvantaged populations then improve their whole school functioning - tying resources to individual children raises transaction costs

and does not, in and of itself, improve student outcomes. Student outcomes improve most when whole schools improve. If you want to be progressive about this then target Low SES schools with improvement programs like Fogarty EDvance (leadership led) or Catalyst (whole school, leaders and teachers) first.

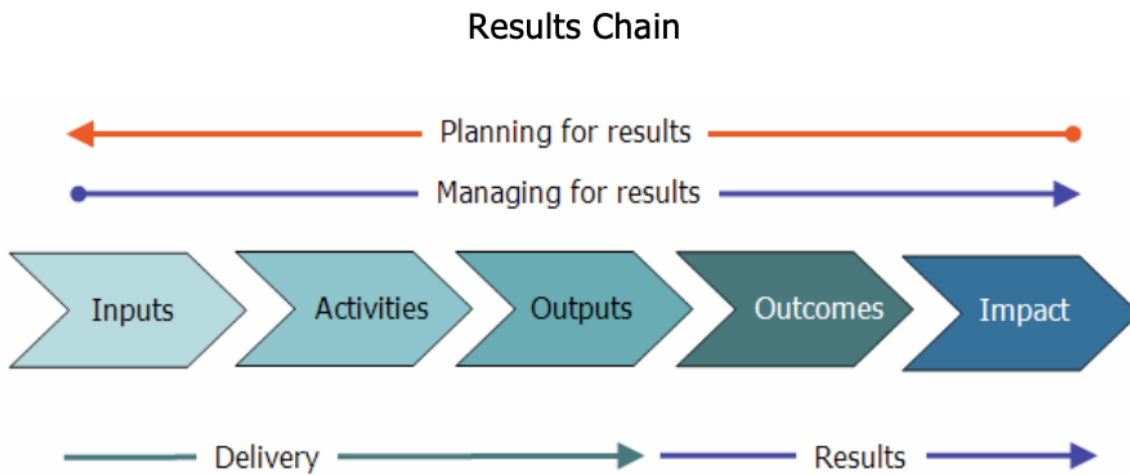
The Catalyst program has proven to be a great boon for students with additional needs, particularly students with mild to moderate Dyslexia, ASD and ADHD. Classroom teachers report the explicit instruction and attentional control in the classrooms enable students to be much more engaged as they spend less time having to make decisions on where to be and what to do next, the teacher leads them. This creates calmer and more ordered classrooms for all where success is heightened and this gives a real boost to students who struggled in more chaotic classroom environments.

In addition, the clarity on professional learning and the provision of the same professional learning opportunities as to metropolitan schools which has been a hallmark of Catalyst has meant improvement in student outcomes is spreading across the system. Additionally, the targets and reforms outlined below are also the best measures to put in place to improve student mental health and wellbeing. In-school factors while acknowledging the impact of non-school factors on wellbeing.

How data collection can best inform decision-making and boost student outcomes

Design for impact, measuring for quality of delivery and rollout first

When we designed the Catalyst program for Catholic Education Canberra Goulburn our approach was to *design for impact*, but to start the measurement with measuring the quality of *delivery* (rollout/implementation) and when everyone is satisfied the implementation and rollout are done well, then measure for results. This way, if there are issues of delivery or implementation at the school level, they can be identified and sorted quickly. Secondly, it means you are not mistaking poor implementation for poor program design, you get a more faithful measure of impact. This will be important for the NSRA. If you just focus on outcomes, you will not be putting in place the right scaffolds and supports and early warning systems of what is not being delivered or implemented well in particular geographies.



How to ensure public funding is delivering on national agreements and that all school authorities are transparent and accountable to the community for how funding is invested and measuring the impacts of this investment.

Current state in Australia with respect to implementation of instructional models in all our schools based on evidence and science

At present most States in Australia do not have a clear direction on instructional models for schools. This is despite the overwhelming evidence. Therefore the accountability mechanisms in most States in Australia, usually involving regional supervision of schools, especially low performing schools. Most of the support and coaching only extends to advice and coaching principals on personnel and management issues. Instructional models and curriculum mapping and planning and lesson quality are rarely reviewed. Although these are the biggest levers for improvement, support and advice on how to go about implementing an improved instructional model across the school is rarely provided (outside Catalyst and a small number of other examples). In fact, Australia’s educational jurisdictions are wasting hundreds of millions of dollars employing an accountability structure in our States implemented by people who don’t understand the basics of the improvement journey of a school which starts with improving the instructional model implemented in every classroom. The NSRA must attend to this issue.

The NSRA should require that every education system that receives Commonwealth funding makes clear to their schools that they expect them to employ an

evidence-based instructional model proposed by and approved by the Australian Educational Research Organisation (AERO). Australian student learning outcomes will lag behind the rest of the world until this happens. This is the moment to make the move. Australia's students - particularly those in regional and lower-socio-economic areas and households who do not have the resources for private tutoring are reliant on the quality of practice in their classrooms. This can be improved if State governments reform their ways in terms of telling schools, it is up to them to decide on the school improvement strategies, instructional model and pedagogy and curriculum approach.

In addition, it is not enough to release a document that outlines a new, evidence-informed instructional model². If the Commonwealth desires that every child in Australia receives the best-evidence based instruction, then States have to design change management and professional learning programs well enough designed, resourced and delivered, that are capable of achieving impact. Catalyst provides a template for this.

Achievement at a whole of State level, will require significant investment in the creation of realistic implementation models. The goal is nothing less than classroom practice change in 175,000 classrooms and by 200,000 teachers nation-wide.

The practice change program, in each State, for each school, would include, at a minimum:

- Training for leaders in the new instruction model and change management skills to introduce it into their school
- Sufficient Professional learning from expert teacher educators with a track record (multiple face-to-face days plus other coaching, knowledge and access to examples)
- The right assessment and intervention protocols (best-evidence)
- Better, whole school approaches to curriculum improvement (starting with implementation of quality Systematic Synthetic Phonics program and moving on through curriculum resource acquisition across the learning phases and subjects.
- Every school in the country to use the National phonics check and for each State to transparently monitor and report on achievements in this test

² In addition States should learn from the experience of the Victorian and Western Australian governments in developing the High Impact Teaching Strategies document and the Quality Teaching Strategy, if you ask teachers and leaders for feedback on evidence-based practice, they will demand that you include the non-evidence based practice they are currently employing eg Differentiation in HITS and a still large emphasis on inquiry in Quality Teaching Strategy.

APPENDIX A. Catalyst Case Study

Mission - Empowering school leaders and teachers to improve their education system.

Summary

Catalyst is a teaching and learning program that supports excellent teacher practice in curriculum, pedagogy and assessment in all 56 schools in the Catholic Archdiocese of Canberra Goulburn. Placing teachers as the most important learners, Catalyst is a professional learning program informed by the Science of Learning and the Science of Reading for more than 2000 teachers and leaders across the system, delivered by a combination of external experts and internally delivered online knowledge-building online units followed up by in-classroom coaching.

The implementation of Catalyst will support the system to achieve two bold goals: every student is a competent reader; and high impact teaching practice is visible in every classroom.

Leaders in the system are supported to lead the implementation of all Catalyst programs in their schools. Teachers in the system engage in Catalyst through the High Impact Teaching Practice program, the K-2 Literacy program (for K-2 teachers), Catalyst Curriculum and Catalyst Assessment.

The project involves:

- Professional learning in high impact pedagogy for all teachers across the system and in science-aligned reading instruction (K-2 teachers only)
- Professional learning involves, theory, demonstration, practice and coaching for all participants
- Low variation curriculum
- Whole-school teacher-directed instructional approach

Features of Catalyst:

- K-2 Literacy - Every primary school and every K-2 teacher provided best of class, evidence-based reading instruction knowledge, practice and coaching.
- Whole-of-system Professional Learning - All teachers and leaders have completed 8 online units and PL days developed and curated from global, national and in system content.
- High Impact Teaching Practice - All 56 schools participate in a high impact teaching practice program (intense - 5 days a year of PL including in classroom observation and coaching).
- Principal engagement - Annual School Improvement plans and Performance Improvement support integrated with Catalyst to increase alignment and focus.

Impact to date:

- 100% of Principals have engaged in Leadership professional learning
- 100% of teachers have engaged in knowledge building through online units and

- professional learning
- 700+ teachers engaged in High Impact Teaching Practice, with every school participating
- 350+ teachers participating in InitiaLit (evidence-based whole-class literacy program) training
- 90% schools using evidence-based literacy intervention across K-12

Emerging results:

- A strong uptake from teachers who appreciate the rigour, professionalism, learning opportunity, resources and support.
- Appreciation from principals of the system providing the instructional leadership and clarity on what school improvement involves.
- Early data is showing a lift in Year 3 NAPLAN results, significant improvements in phonics check, the system now has the best trained K-2 teachers in reading in Australia, and positive anecdotal parent commentary.
- External analysis has been positive. Dr Jenny Donovan, CEO of AERO, has said, “If I’d had the chance to design a school improvement program, it would have looked like Catalyst.”

Appendix B.

Powerpoint from oral submission



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