



think big

FAST-FORWARD TO THE FUTURE

The future of education is here. In this inaugural Innovative Schools list, *The Educator* profiles the schools that already know it

WELCOME TO *The Educator's* inaugural Innovative Schools list.

In recent months, we went to the market asking for submissions from Australia's most innovative schools – those that are truly pushing the boundaries of education.

With over 177 submissions received, we are able to bring you an inspiring shortlist of

the schools truly at the cutting edge, in everything from pedagogy to technology. Forty schools (listed alphabetically over the following pages) have been identified as going 'above and beyond'. Twelve of these 40 have been 'spotlighted' in more detail.

Want to know where the future of education lies? Read on.

A MESSAGE FROM OUR SPONSOR

Schoolbox and Digistorm Education are delighted to have the opportunity to support the Innovative Schools report for 2015.

The Educator Innovative Schools 2015 showcases those schools at the forefront of change and innovation. From new learning spaces to curriculum design, use of technology and more, these schools are trying new approaches to teaching and learning that are shaping the educational landscape of the future.

We are proud that many of the schools showcased are both Digistorm and Schoolbox customers, and on behalf of both organisations we congratulate those that made this year's Innovative Schools list – well done!

Technology is only one component of what is required for schools to innovate in today's competitive environment. From our experience working with many of those listed, true innovation within these schools is driven through their culture, investment in the right human resources, respect for ongoing professional development, appropriate accountability right up the chain of command, and, of course, the right technology.

We encourage all schools to learn from the success of this year's showcased schools and to continue to implement new initiatives, especially in support of teaching and learning through technology.

Our thanks are also extended to *The Educator* for pushing the education industry forward. We are delighted to be a part of this initiative.

Sean Richards, co-founder, Schoolbox

Tim Oswald, managing director, Digistorm Education

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INNOVATIVE SCHOOLS 2015

ASPECT HUNTER SCHOOL

THORNTON, NSW

Part of Autism Spectrum Australia, the passionate staff at Aspect have created a renowned model for iPad use at school, employing forward-thinking approaches to supporting children with autism in achieving maximum educational engagement.

AUSTRALIAN SCIENCE & MATHEMATICS SCHOOL

BEDFORD PARK, SA

This STEM-focused school is pushing the boundaries of senior secondary STEM education with open learning environments, interdisciplinary learning programs and prioritised professional learning, including for external educators.

BRAEMAR COLLEGE

WOODEND, VIC

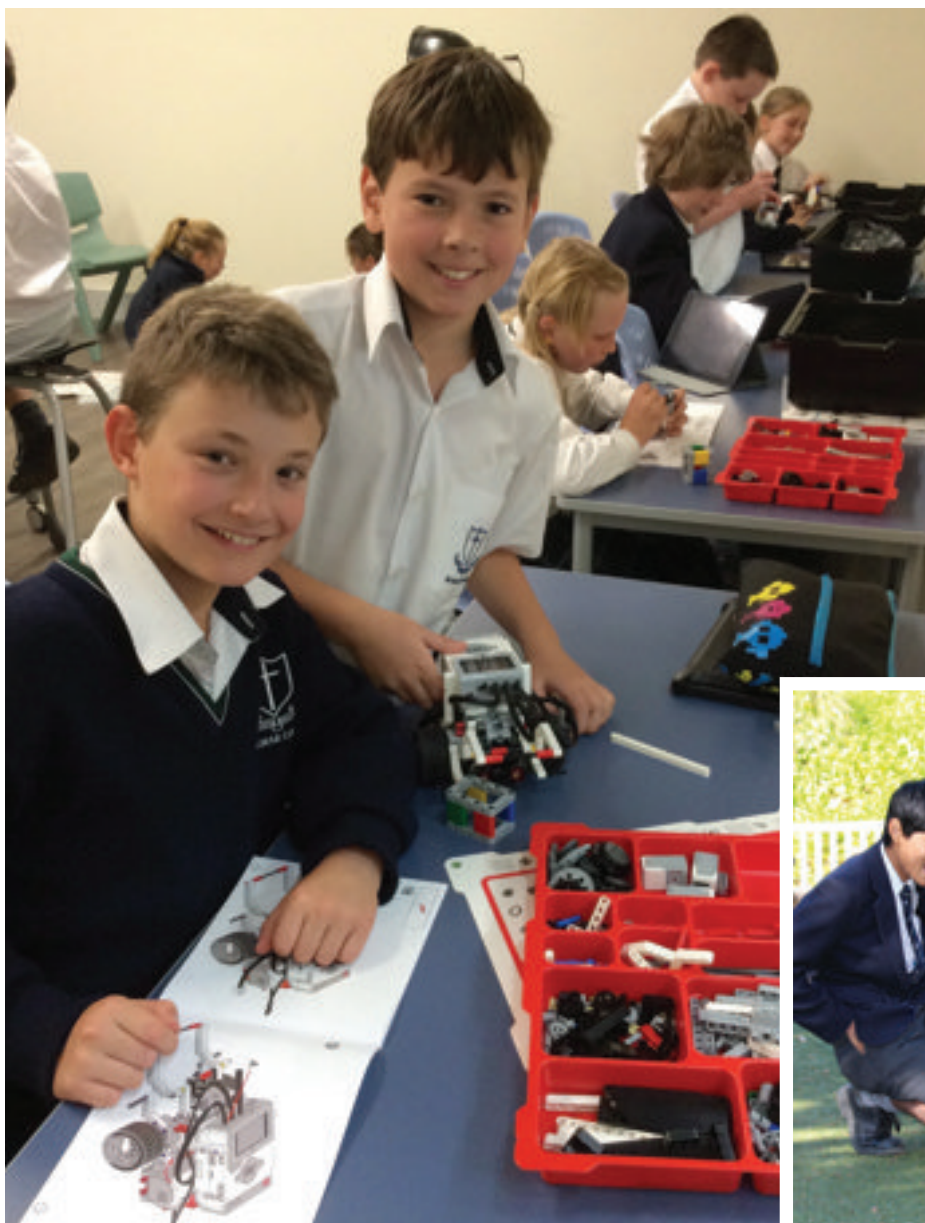
Sphero robotic balls, Lego Mindstorm technology, 3D printing. These are just a few of the tools being used by students at Braemar College as part of the school's hands-on approach to the exploration of science, technology and maths.

"By providing hands-on learning experiences that are both engaging and challenging, we aim to develop critical thinking skills and a love of innovation," explains Braemar College principal Russell Deer.

Aiming to bring theoretical learning to life, the school has introduced a new subject called 'Making', which helps students understand the logical processes involved in solving problems. It then expands this into a making experience.

"The necessary skills are explicitly taught initially, enabling young people to apply their learning to the processes of design and development," Deer says.

Year 5 and 6 students, for example, have been working with Sphero robotic balls, writing and testing their own computer programs. At the same time, a Space Challenge pack allows students to create space travel craft, while the recent acquisition of a 3D printer enables seniors to create 3D computer models and print their creations, which are soon to be complemented with brand-new 3D pens.



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BILLANOOK COLLEGE

MOOROOLBARK, VIC

The 'shapers' and 'makers' of the future may just come from Billanook. A new strategic plan is paving a new way for K-12 students to approach learning through distinct learning experiences called 'mastery', 'discovery' and 'journey'.

CAMBERWELL SOUTH PRIMARY SCHOOL

GLEN IRIS, VIC

'Personalisation' is a core purpose at Camberwell South, which embraces cutting-edge pedagogical practice through means as diverse as the creative use of 1:1 BYOD, a 'maker' culture, exposure to coding, and entrepreneurialism.

CATHOLIC REGIONAL COLLEGE, NORTH KEILOR

KEILOR LODGE, VIC

This co-educational school's 'quietly revolutionary' Nitor program turns disengaged Year 10 boys via manhood-focused training into 'motivated' and 'empathic' learners. It includes an 'Amazing Race' in Sydney and Melbourne.

DECEPTION BAY STATE HIGH SCHOOL

DECEPTION BAY, QLD

Creating opportunities in a low-SES community, Deception Bay has programs called FUTURES (for disengaged students) and ASPIRE (for teenage mothers), and delivers its own Cert III courses as part of its standard offering.

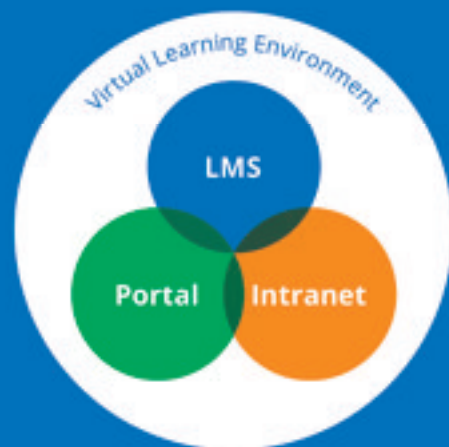
HILLVUE PUBLIC SCHOOL

TAMWORTH, NSW

One of 15 Connected Communities schools in NSW, Hillvue is a 'community hub'. It is boosting literacy and numeracy data among students – 78% of which are Aboriginal – with an ongoing push towards open and shared learning.



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INNOVATIVE SCHOOLS 2015

CALLAGHAN COLLEGE NEWCASTLE, NSW

It's a very select group of schools that can claim they are among the world's top 21st Century Learning schools, but Callaghan College is one of them.

An initial 18-month commitment to improve teachers' knowledge and skills at the school in 2011 soon morphed into a fully-fledged 21st Century Learning Project, involving a cross-campus team driving ongoing professional learning.

The result? Callaghan was recognised by Pearson Education International as one of 2013's top three 21st Century Learning schools worldwide when it was shortlisted as a finalist for its School of the Year award.

"This competition recognises exceptional schools that have processes in place to ensure diffusion of good practices as well as providing the opportunity, resources and support for innovation and experimentation,"



says principal Graham Eather.

The project builds confidence, competence and capabilities of teaching staff with technologies so they can more effectively use them as tools to build student skills in communication, collaboration, critical thinking and creativity.

Callaghan reports a 100% increase in classroom opportunities for students to access interactive technologies to support teaching and learning. It is now working to integrate flipped learning with cloud-based systems.



CANBERRA GRAMMAR RED HILL, ACT

It's a small world at Canberra Grammar.

While other schools are looking inward as they innovate, Canberra Grammar is focusing outward, with a vision for intercultural understanding through engagement with Asia. Through classroom upgrades and greater access to communications technology, the school is building a broader concept of contemporary learning and an enhanced capacity to engage with the world.

The culmination of its efforts? The creation of a brand-new flagship building, proudly named the 'Snow Centre for Education in the Asian Century'.

"The Snow Centre is designed to transform learning and teaching at the school," head of school Justin Garrick says. "It not only places global literacy at the heart of the curriculum but facilitates the kind of open, collaborative and self-directed learning skills that students need to flourish in the modern world."



The Snow Centre has 12 dedicated learning spaces for teaching Asian languages, geography, history, economics and culture. Its facilities enable students to more easily engage with Asia; for example, using virtual conference technology to host shared learning with the international classrooms of Asian sister schools.

The centre now plays a key role in fostering Asian engagement. It has hosted speakers on Asia and the ACT Department of Education's Building Asian Capabilities conference. It opens its facilities to the ACT Chinese Cultural School, and hosts Asian teaching delegations to share skills and build engagement.



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INTERNATIONAL FOOTBALL SCHOOL

KARIONG, NSW

A specialised school for elite young sportsmen and women, this school is helping ensure that students who are already highly self-motivated achieve a proper mix of personal, academic and athletic development through project-based learning.

IPSWICH GRAMMAR SCHOOL

IPSWICH, QLD

Educating the next batch of 'modern gentlemen', Ipswich Grammar engenders strength of character through identification and development of unique character strengths. These include 'Super Hero' and 'Real Men Read' programs.



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INNOVATIVE SCHOOLS 2015

EAST HILLS GIRLS TECHNOLOGY HIGH SCHOOL

PANANIA, NSW

In a quest to “educate girls for a technological future”, the only designated technology high school for girls in NSW is embracing all things digital.

And not least the iPad.

East Hills Girls Technology High School has put in place a comprehensive 1:1 iPad program, with Years 7, 8, 9 and 10 all benefiting from iPad access.

Treating it not just as a device, the school has built resources around it to enhance learning. For example, staff are provided with an iPad, planning time and professional learning. Each faculty has a teacher representative on the iPad team, allowing units of work to be created collaboratively and shared, while head teachers lead integration into the school’s everyday teaching and learning.

“Technology is helping students to learn.



Our school creates a rich multimedia learning environment in and out of school so that students can access information in a way that makes learning more worthwhile,” says deputy principal Annette Brunt.

So far, the school has used the iPad to introduce Minecraft and Into Science, while Smart Science gaming activities were used as part of a University of NSW research project exploring space and global issues in Years 9 and 10. Interactive textbooks and iTunes U are also part of the mix, while teachers use Showbie alongside Moodle and Edmodo for online assessments and feedback.



GLENROY PUBLIC SCHOOL

GLENROY, NSW

They might be young, but the students of Glenroy Public School are all leaders.

With four ‘class communities’, each with a cross section of Years 3, 4, 5 and 6, older students at Glenroy are encouraged to mentor and support younger peers, role modelling appropriate behaviour, learning habits and citizenship skills.

Likened to ‘family’, the class communities are inspiring the development of core values across all age groups, at the same time as developing the maturity of younger students and allowing older students to practise leadership skills.

Since 2012, Glenroy has seen a significant shift in the student leadership and peer support taking place across the whole school – so much so that, during the school’s Student Council Representative election last year, every Year 6 student except two



nominated themselves, because ‘they knew they could’ lead.

With the experiences they had gained in their class communities, each student developed the confidence to become a ‘successful, purposeful’ leader.

This makes Glenroy – and its budding 200 students – leading innovators among larger schools in NSW when it comes to structuring classes.





KAMBALA

ROSE BAY, NSW

Kambala puts wellbeing and connectedness first. A new Wellness Week is encouraging cross-campus interaction and peer support, while increasing awareness of psychological wellbeing and raising money for Lifeline.

MARK OLIPHANT

COLLEGE B-12

MUNNO PARA, SA

'The future is now' at this ICT-focused school, which has become a model for 'viral' 1:1 digital device rollouts since launching in 2010. It embraces all things ICT, from five-year-old student bloggers to an open 'curated curriculum'.

MELBOURNE GIRLS

GRAMMAR

SOUTH YARRA, VIC

Melbourne Girls Grammar is embracing all facets of change, including creating the Centre for Educational Enterprise, a like-minded community of global educators contemplating innovative issues like technology and reform.

MILTON STATE SCHOOL

MILTON, QLD

Positioning technology as an 'object to think with' rather than a 'tool', Milton State is integrating coding, robotics and 3D printing into flipped classroom and blended learning environments to 'reimagine' what teaching looks like.

MONTROSE BAY HIGH

MONTROSE BAY, TAS

Individualised learning is in the hands of students themselves at Montrose Bay, where willing Year 9 and 10 students construct projects around curriculum requirements, following their passions with the help of a 'learning coach'.

MOUNT OUSLEY PUBLIC

SCHOOL

FAIRY MEADOW, NSW

There are many facets to Mount Ousley's innovation, from individualised 'Genius Time', student interest-focused 'enrichment groups', and the 'action research' approach of teachers, to amateur radio conversations with astronauts in space.

NORTHERN BEACHES

CHRISTIAN SCHOOL

TERREY HILLS, NSW

Names – not numbers – mark the way around this school renowned for spatial and management creativity. Under the central, canopied 'Manhattan and the City', teachers play a role in management, or teach using modern pedagogies.

OATLEY WEST PUBLIC

SCHOOL

OATLEY, NSW

Students prioritise values at Oatley West. Placing a premium on student wellbeing and mental health through its related charity work, the school fosters positive self-image, character, resilience, social skills, and gratitude.

HAILEYBURY COLLEGE BRIGHTON, VIC

Haileybury College sets the bar high with a number of records, including being the largest independent school in Australia, with 3,650 students.

However, the school showed its innovation 13 years ago when it decided to deliver the Victorian Certificate of Education (VCE) in China. The result? It is now also the largest provider of Australian secondary education in China.

Haileybury has eight partner schools in China, with 200 graduates finishing every

year, and in 2013 it opened the first Australian school for Chinese students in Wuqing, in partnership with Hong Kong-listed developer Beijing Capital Land. The new school boards 1,200 Chinese students, delivering the Chinese curriculum to Year 9 and then the VCE in Years 10–12.

“Haileybury Melbourne students have the opportunity to visit and study at the school,” says principal Derek Scott.

Recognising the changing demographics of Melbourne, the school is also jumping ahead of the curve by purchasing a 13,000sqm building in the city’s CBD, which will house an Early Learning Centre. When the school has the building ready in 2017, it will be Melbourne’s first ELC-12 city campus.



ORMISTON COLLEGE ORMISTON, QLD

A commitment to innovation is seeing this school push for new 21st Century Teaching and Learning approaches through the ‘big ideas’ projects of its dedicated committee, while being an exemplar for educators on ICT integration.

PEAKHURST SOUTH PUBLIC SCHOOL PEAKHURST HEIGHTS, NSW

Peakhurst South is a KidsMatter school that meets social and emotional – as well as educational – needs. Developing the ‘whole person’, it builds relationships and empathy through measures like its emotion-focused Kimochi program.

JOHN MONASH SCIENCE SCHOOL MONASH UNIVERSITY CLAYTON CAMPUS, VIC

The real world is not far away for the students at John Monash Science School (JMSS).

The first specialist science school of its kind in Victoria and one of only three in Australia, JMSS has taken this pioneering spirit to heart by designing innovative approaches to teaching and bringing science into the modern classroom.

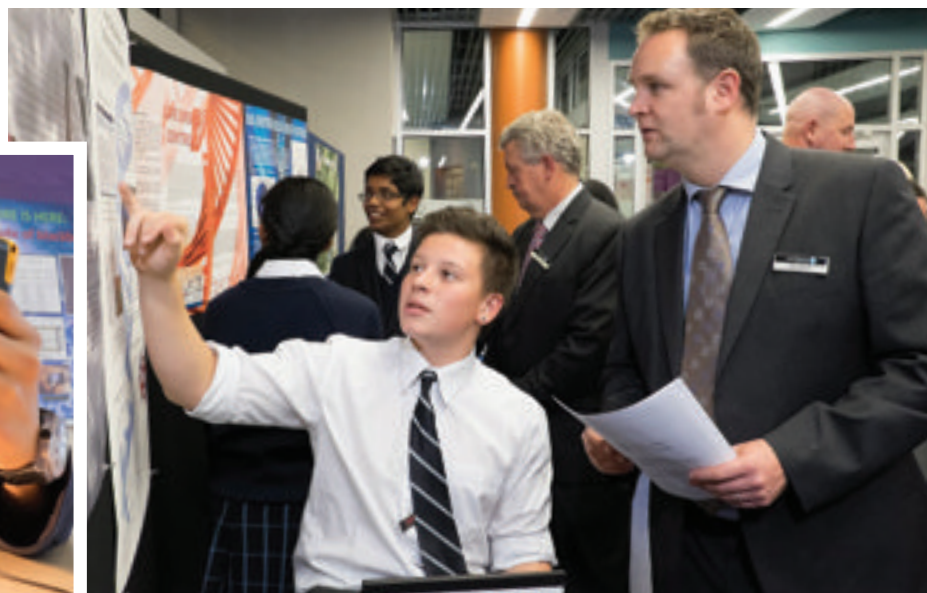
All teaching and learning at JMSS is done in teams. “The school believes all student and teacher work should model and reflect the world of work our young graduates will face,” says principal Peter Corkill. Regular classes are made up of 50 students and two teachers, following structured, phased lesson plans and using high-end technology on laptops, iPads and iPhones.

The curriculum also reflects life outside of school. “The curriculum is challenging and stimulating and allows students to explore the leading issues pervading current scientific research and understanding, while still building solid foundational expertise,” Corkill explains. “It is designed to allow students to integrate knowledge across arbitrary subject boundaries and explore new ideas in much the same way as science researchers do from day to day.”

Students can expect to study anything from nanotechnology and bioinformatics (Enrichment Science) to manipulating big data and robotics (Emerging Technologies), in addition to regular subjects like English.

The school also pushes boundaries with new subjects like biochemistry and computational physics, and 25% of students complete a university subject in their final year.

JMSS doesn't keep its expertise to itself. Curriculum options in science are shared with schools in remote parts of Victoria through regional exchange.



RAVENSWOOD SCHOOL FOR GIRLS GORDON, NSW

Making musical instruments from recycled materials, designing computer programs with code, and programming robots are all part of the problem-solving, creative journey for the ‘making’-focused primary girls at Ravenswood.

INNOVATIVE SCHOOLS 2015

MATTHEW FLINDERS GIRLS SECONDARY COLLEGE

GEELONG, VIC

Whether it's in the school's 'living garden' or in the possibilities of technology for improving the world around them, Matthew Flinders Girls students aren't afraid to put creativity first and foremost – or to get their hands dirty.

The school's 'Earth care, people care, fair share' philosophy has seen it create a model community garden that is used for learning in classes from maths to food technology, and grows everything from vegies to native flowers.

The girls share the space with community schools like the Bay City Learning Centre, and via initiatives like Dial a Lunch share organic produce with people in the City of Greater Geelong who would benefit from the food. In future, the living garden is expected to be a place to engage the school and the wider community in important activities that increase



awareness of permaculture, sustainable living practices, caring for the environment, healthy eating, and reuse and recycling practices, including food swap events and farmers' markets.

Creativity has also seen the invention of a brand-new 'digital technologies' curriculum, with an 'invent to learn' core that has already spawned a student-led Maker Fair for 120 primary schools. Its focus on 'understanding through inventing and tinkering' is grooming students to be 'creators, not consumers.'

NOSSAL HIGH SCHOOL

BERWICK, VIC

Most students wait until university to engage with the latest in online learning technology, but the students of Nossal High School are a digital step ahead.

Beginning in 2014, the school embarked on an ambitious e-learning program, dedicating a number of school days exclusively to online learning, when students stay home and engage in lessons remotely.

Utilising webinars, discussion boards, chat rooms, teacher-designed online video and digital formative assessment tools, students work through their normal timetable 'live' with their teachers and peers, including subjects such as physical education and music, as well as science and maths.

Through this Digital Delivery Day program, Nossal hopes students will learn the valuable skill of interacting effectively with their teachers and peers through online tools, while teachers provide them with valuable feedback.



"In discussion with our university partners, academics have outlined their increasing reliance on online delivery, and noted a combination of reluctance and skill deficit of students to effectively engage with the learning environment," says Nossal physics teacher Stuart Fankhauser.

Nossal has expanded the program this year and will work with other interested secondary schools in the organisation of their own Digital Delivery Days.



MERRYLANDS EAST PUBLIC SCHOOL

MERRYLANDS, NSW

Principals and educators from all around the world visit this school in Southwestern Sydney to watch and learn from teachers who collaboratively implement learning programs, address the individual needs of students, and help the 370 K-6 students through their ‘transformative’ first experience of school.

When they visit, they’ll hear no bells and see no class timetables. They’ll see students walking freely through ‘agile learning spaces’ to collaborate both indoors and outdoors. They’ll also notice the environmentally sustainable features like water tanks and solar panels around the grounds, and the principal working from a mobile phone, tablet or laptop rather than an office.

That’s because Merrylands East Public School is a school that has attempted to fundamentally change the traditional method of schooling to one that reflects how K-6 students actually learn, using educational

technologies. This includes innovations like students themselves ‘self-regulating’ the curriculum and helping each other learn; having minimalist alternative furnishings rather than a table and chair for every child; and teachers team-teaching on a daily basis.

Want to see students using YouTube in ‘Genius Hour’ to learn music, or watch 11-year-olds building websites and apps? This is the school to visit.



INNOVATIVE SCHOOLS 2015

ST MICHAEL'S CATHOLIC PRIMARY SCHOOL

LANE COVE, NSW

Year 5 and Year 6 students at St Michael's were the first explorers to immerse themselves in the musical traditions of Java and Indonesia via iPad, thanks to their involvement in a pilot program run by Musica Viva In Schools.

In 2014 and 2015, the school was instrumental in partnering with Musica Viva to trial a student-led digital resource for the iPad – *Lir Ilir* – which is the first in a series of interactive books in the organisation's Musicadventures series.

The *Lir Ilir* interactive book resource explores over a number of weeks the musical traditions of Java with Indonesian ensemble Makukuhan, and presents interactive information about Indonesian culture.

The musical partnership also involved a range of activities at the school in 2015, including a parent information session,



professional development opportunities for teachers, and two assisted lessons for Years 5 and 6 using iPad resources. There were also three live performances with Makukuhan.

Thanks to the involvement of St Michael's, Musica Viva says it ultimately has a better understanding of how students engage and learn with technology, and how to develop a program that engages more children in music education.

"Technology is changing the way we teach and learn. The experience has been invaluable," says Musica Viva's Colette Vella.



TEMPLESTOWE COLLEGE

LOWER TEMPLESTOWE, VIC

Even progressive principals might balk at surrendering school management control to individual students – but that's the situation at Templestowe College, where the students make the rules, to which management has a 'yes' rule.

"We acknowledge it's the student's learning – not their parents or ours as educators – and as such it is they who must take full responsibility," says principal Peter Hutton.

With input from parents, each student develops an Individualised Learning Plan with a five-year time horizon, which they can then adapt flexibly themselves. If they have established the necessary literacy and numeracy skills, they are able to select 100% of their study load from more than 130 options. Something not on the list? No problem. It can be designed as a 'Personalised Learning Project'.

The school's approach doesn't stop there.



There are no year levels, so students can study at their own ability level – and only what interests them. They can choose when they start, and when they finish. Students help run the school, having positions on the leadership group and the curriculum team, and performing many basic jobs. Students have a say in who teaches and mentors them, and even sit on selection panels for new teachers.

"Our community has grown from 350 to 700 in five years," says Hutton. "We have learnt a lot about what works and what doesn't when redefining what 'school' can be, and are keen to share ideas," he says.





SANTA MARIA COLLEGE ATTADALE, WA

A suite of ‘enhanced learning’ programs sit above the regular Australian Curriculum at Santa Maria, helping girls of three different ability streams challenge and extend their skills while preparing for life after school.

SOUTH OAKLEIGH SECONDARY COLLEGE OAKLEIGH SOUTH, VIC

A \$100,000 grant helped upgrade a TV studio at South Oakleigh, which is now being used as a cross-curricular tool for classes. Students are preparing to launch their own YouTube channel, which includes an interview with KISS guitarist Bruce Kulick.

ST MICHAEL'S GRAMMAR SCHOOL ST KILDA, VIC

St Michael's Grammar will soon launch a \$20m state-of-the-art teaching and learning facility called ‘The Commons’. Collaboration and reflection will merge in this mixed-use development that includes sci-tech and knowledge facilities.

ST VINCENT'S COLLEGE POTTS POINT, NSW

‘Transliteracy’ is being explored by St Vincent's College in depth, as the school applies early experimentation via student projects into the development of a framework for the deployment of these transferable skills in the classroom.

TRINITY GRAMMAR SCHOOL SUMMER HILL, NSW

The Arthur Holt Library at Trinity Grammar has been transformed into a collaborative learning environment, incorporating new digital technology and real-world learning spaces to foster community and knowledge creation.

TURRAMURRA HIGH SCHOOL SOUTH TURRAMURRA, NSW

Turramurra High has brought the ‘inside out’ with a new outdoor learning space, is working as part of the NS5 group of schools on collaborative learning projects, and is establishing project-based learning programs, including one with UTS.

WINTERS FLAT PRIMARY SCHOOL CASTLEMAINE, VIC

Students cheer while doing maths at Winters Flat Primary. The school is focused on improving maths delivery based on the NZ Maths Framework via small-group learning, games, problem-solving, and articulating mathematical thinking.

YASS HIGH SCHOOL YASS, NSW

An ‘integrated learning’ subject has been developed in-house at Yass High School for Year 9 students, providing a rich, cross-curriculum experience drawing on all subjects and delivered in a new state-of-the-art, open-plan facility.