Briefings

A monthly member publication of Independent Schools Queensland
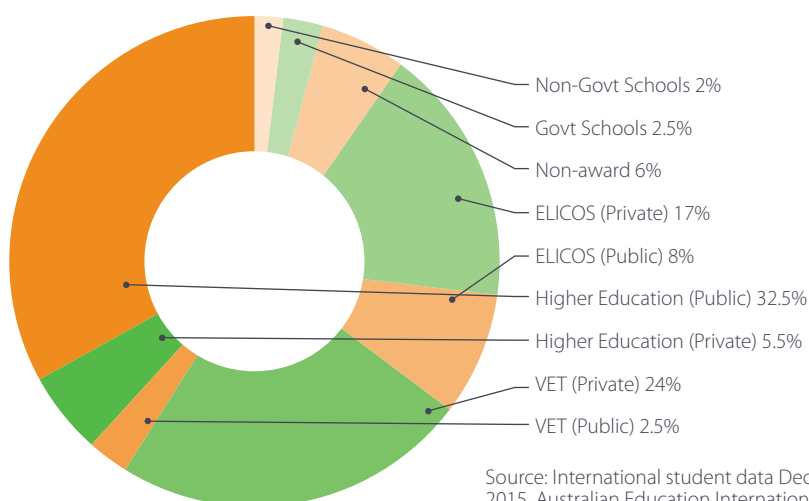
From the Executive Director

It's a Small World

Exports from international education were valued at $18.8 billion in 2015, making it Australia's third largest export. The figures are impressive including that international education export revenue is estimated to have supported over 130,700 full-time equivalent (FTE) employees in 2014–2015.

The broader social and cultural benefits of international education are just as important.

The role played by the schools' sector in international education is small, although perhaps vastly underestimated, compared to the dominant tertiary sector.

Successive Queensland Governments have developed strategies for Queensland in relation to international education and the release of a draft *International Education and Training Strategy to Advance Queensland* 2016–2026[1] is the latest proposal to grow international education in Queensland.

Figure 1: Proportion of total student enrolments by sector in 2015

- Non-Govt Schools 2%
- Govt Schools 2.5%
- Non-award 6%
- ELICOS (Private) 17%
- ELICOS (Public) 8%
- Higher Education (Public) 32.5%
- Higher Education (Private) 5.5%
- VET (Private) 24%
- VET (Public) 2.5%

Source: International student data December 2015, Australian Education International

Under the auspices of Trade and Investment Queensland, the draft strategy notes that 103,251 international students were enrolled in Queensland in 2015 generating $2.9 billion in export revenue. These enrolments accounted for 16% of the national market for international students.

As outlined in *Figure 1*, the schooling sectors accounted for just 4.5% of these students with Higher Education (38%) and VET (26.5%) having the largest numbers of international students.

Despite this, the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS) reveals that of the 308 registered providers in Queensland, more than one third are non-government schools, including 82 independent schools.

In 2016, independent schools catered for 1,469 FTE overseas student enrolments, an increase of 175 students over 2015.

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1 Available at www.tiq.qld.gov.au/IET-strategy

It's a Small World

Figure 2: Overseas Student Enrolments and Number of Providers – Queensland Independent Schools, 2001–2015
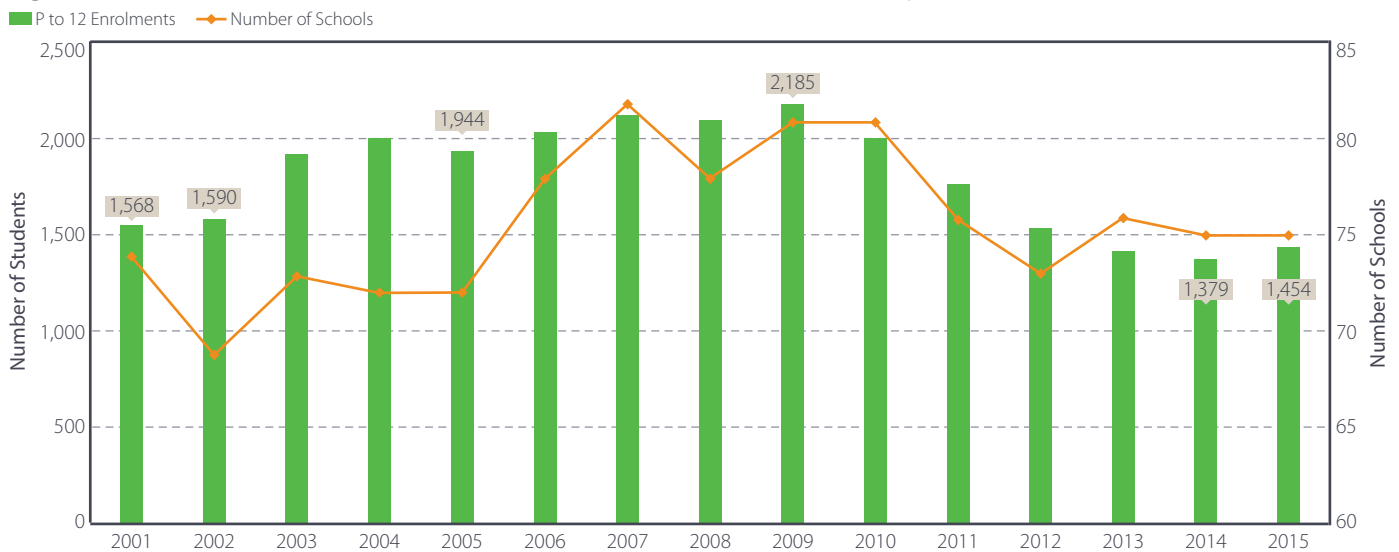
The overseas students market has been a tough one for independent schools in the past decade. As outlined in *Figure 2*[2], enrolments of overseas students in Queensland independent schools reached a high of over 2,000 in 2007 but declined to less than 1,500 in 2014. Increased enrolments in 2015 and 2016 are encouraging with 2016 commencements through to June showing a 16% increase over the same period for 2015.

The draft *International Education and Training Strategy to Advance Queensland 2016 – 2026* proposes aspirational targets including an industry-wide national market share target of 20% by 2026 – this would see the number of student visa enrolments increase to just under 200,000 (compared to the current 103,251).

Key national and state international education research and strategy documents identify the schools sector as having potential for growth.

From the perspective of the independent schools sector, there are a range of actions that could build the foundations for a greater contribution to international education.

The regulatory burden and costs associated with becoming CRICOS registered and maintaining registration are considerable, and are borne individually by independent schools. Consequently, there is very little incentive for schools with small numbers of international students to remain CRICOS registered, or for schools to become CRICOS registered. It should be incumbent on government to advocate for an easing of regulatory burden and costs for non-government schools as part of the state's strategy.

Further, embedding the role of independent schools within a whole-of-government growth strategy would be worthwhile. Whilst the State Government may have an intention to

increase the number and variety of state schools accredited to enrol international students, there appears to be no parallel proposal to support increased participation of non-government schools. Some positive actions might include ensuring that the dependents of international students can access non-government schools on the same basis that they attend state schools and facilitating a greater involvement in offshore delivery of Queensland curriculum and products by independent schools.

The role of schools in the provision of international education activities other than enrolling full fee paying overseas students should also be recognised in our international strategy. Schools can and do play a significant role in sister school relationships, exchange programs for students and teachers and study tours. The economic, cultural and social benefits of these activities are often underestimated.

2 Source Independent Schools Queensland Snapshot – available at www.isq.qld.edu.au

These types of activities can be particularly important in promoting study pathways for students, with schools the earliest point of entry into our education system. A positive school experience, whether it be through an exchange or study tour, can lead to a future enrolment in tertiary or VET education in a Queensland institution.

Unlike tertiary institutions, schools are engaging with students under the age of 18, so there needs to be a detailed understanding of the unique requirements and pastoral care arrangements in respect of these students. Building strong pre-departure information sessions, welcome programs and student hubs that are also appropriate for young people under the age of 18 are vital to encourage school-age students to continue their studies in Queensland.

Overseas school-age students bring the potential benefit of family and friends visiting the state. Promoting tourism along with travel to attend graduation ceremonies, or developing community links for international students to volunteer, join sporting groups or mentoring programs to develop cultural understandings or employability skills are all ways to enhance community connectivity, and to raise community awareness of the value of international education at a local level.

Affordable, good quality accommodation is also essential for overseas school students and the potential for the 30 independent boarding schools to play a role in hosting overseas students should not be ignored. A whole-of-government approach to the promotion of international education, across all sectors and all institutions would be beneficial. Small providers, such as independent schools, do not have the resources to market extensively overseas but would clearly benefit from government initiatives aimed solely at increasing the market share for Queensland generally.

It is small providers such as independent schools which promote the diversity of Queensland education offerings and provide connections to not only tertiary pathways but to inbound tourism from family and friends. The extensive range of CRICOS registered independent schools in regional Queensland is a positive and an opportunity to promote international education in regional areas.

Increasingly, our understanding of international education is being informed by big data, shaped by advances in technology, and broadening to focus on graduate outcomes for all students – Australian as well as international. For the independent schooling sector, this means, to some extent, that strategies for internationalisation of schooling, global citizenship education, and the development of 21st

Century skills are converging to create the foundation for future employment of school graduates. At the same time, the many benefits of international education are being better understood and integrated into state and national strategies.

The State Government should be commended for developing a renewed strategy for the growth of international education. This can not only increase the economic benefits flowing from the export of education but also contribute significantly to the broader social and cultural benefits from Queenslanders being connected to an increasingly global society.

Independent schools can play an important role in growing international education, hopefully facilitated by a whole-of-government approach which incorporates the particular needs and operating principles of the independent sector.

A copy of the Independent Schools Queensland response to the Draft International Education and Training Strategy to Advance Queensland 2016 – 2026 is available at http://www.isq.qld.edu.au/files/file/our_services/Advocacy/Submissions/2016/DraftInternational EducationandTraining StrategytoAdvance Queensland2016Final.pdf

David Robertson
Executive Director
Independent Schools
Queensland

A review of global policy and educational trends for technology integration in classrooms

Impactful technology integration in classrooms continues to be a discussed theme amongst educators, policy makers and the wider community. "How are we preparing students for the future?" is a common question asked by many, with most responding that some form of better computer literacy will enhance the future prospects of our current students. But is this also the reality outside of Australia? And why, after decades of research and billions of dollars spent, is the debate of 'what works' in technology integration still such a hot topic with widely varying opinions?

There are many answers to these questions, and before a school can drill down to the individual conditions and contexts of their school, a global review of technology integration in schools can help shed light on our continual evolution into a global economy with country-based constraints. When reviewing the socio-political education contexts of trends, reports and policies, there is evidence of competing contexts globally that have led to key issues on how and why technology is integrated into the classroom. This review specifically focusses on Australia, USA, Singapore and South Korea and how the educational technology landscape has developed over time.

Education policy's impact of integration into classrooms is based on research from the thought provoking work of Jane Hunter in *Technology Integration and High Possibility Classrooms* (2015).

The rise of policy agendas in the USA

In this century, one the most famous and most discussed policies for the USA was delivered in 2001 with the *No Child Left Behind* (NCLB) Act. This policy set the political agenda and debate for a standards-based education system with the proposition that high standards would improve individual student outcomes (Hanushek & Rivkin, 2012). Furthering this agenda was the *Race to the Top* initiative that started in 2010 and sought to develop these high standards into measureable tests, arguably leading teachers to "teach to the test" (American Federation of Teachers, 2012; Wurdinger, 2012). When the political spotlight centred its agenda on these initiatives, there was a diminished focus on pedagogical innovations for technology and technology research in schools. This was evidenced by the drop in reforms and funding for this area over the same period of time (Schrum & Levin, 2009; Ward & Parr, 2011).

However, after a decade-long drop of focus, coupled with a technology-rich rise in other country's businesses and economies, the US Department of Education responded with the *Transforming American Education: Learning Powered by Technology Plan* (Education, 2010). The plan recommended embracing technology and using it to engage students in their learning. It gave technology stature alongside assessment, teaching, infrastructure and productivity. This move, while elevating the importance of technology integration, caused concern amongst educators as teaching expectations were shifted to focus on learning with technology at its core.

It was through this plan that classrooms developed a greater understanding of how to integrate technology into the other curriculum disciplines. As a positive spin-off, this gave rise to philosophies around STEM (Science, Technology, Engineering and Mathematics) and STEAM (including Arts) to "promote deeper understanding of complex ideas and engagement in solving complex problems" (Hunter, 2015).

Other major initiatives arose from the US and expanded to other countries including:

- Teacher Education Initiative – created by the National Technology Leadership Coalition in collaboration with Microsoft

- Preparing Tomorrow's Teachers using Technology – US Department

- Partners in Learning – US Department (Dilworth, et al., 2012).

As a consequence of these initiatives, a rise in quality research into technology was evidenced, particularly stemming from technology social enterprises such as Knowledge Works, Harvard University's *The Good Project* and the George Lucas Foundation (Pellegrino & Hilton, 2012). Research hubs such as these were designed to push the boundaries of technology education and develop the imagination for what schools could look like in the future.

A major endorsement for continuing the focus on technology education as part of a trans-disciplinary approach to education was seen by the US Government's endorsement of STEM education through various policies and papers in 2014. These highlighted the desire to have students become more entrepreneurial through constructivist teaching approaches founded in "learning by doing principles" (Hunter, 2015).

Even with such endorsements from the government, there remains a continuous tension between creating a technology-rich curriculum with future-focussed teaching strategies and the highly publicised standardised testing systems with high accountability for teachers and principals. The newer *Common Core* (used by 44 states in the US) has attempted to show how each subject discipline can be taught, with some technology integration.

However, many proponents still claim its high prescription diminishes creativity and entrepreneurialism in teaching and learning programs. The debate to reconcile the two perspectives continues today across the US.

Technology integration in Singapore

In contrast to the US, Singapore has had a highly structured and successful plan for integrating technology into the classroom since 1997. The government's plans from *Masterplan One* (1997-2002) through to *Masterplan Four* (current) show a progressive development on how and why technology should be implemented. By 2002, Singapore required a minimum of 30% of curriculum time on fully-networked computers, motivating teachers to ensure that technology was integrated into all areas of their teaching and learning program (Rubin, 2013). As each masterplan was developed and implemented, there was a growth in the awareness of transformative teaching to capitalise on what the technology tool could provide for student learning.

Research, such as the work of Dr Ng (Associate Dean and Professor at the National Institute of Education, Singapore), continuously highlights the importance of having a purpose for technology use in the classroom and that the technology is not the end product of learning, but a

tool to drive a new learning experience (Ng, 2016). A country that traditionally held a highly teacher-centred approach to curriculum delivery has now moved to a more student-centred approach to learning with the help of a technology-rich classroom. Hogan (2014), in a review of Singaporean education, discusses how Singapore has attempted to immerse students in technology over time whilst also innovating on its curriculum design to meet the needs of a transformative curriculum through the use of technology.

The tension for Singapore, however, is to ensure it remains as one of the highest performers in global tests such as PISA and TIMMS. Because of this pressure, the Ministry of Education continues to promote a balance of knowledge transmission and knowledge building in its curriculum. As Hogan (2014) states:

It is already clear that the government is willing to tweak once sacred cows, including the national high stakes exams and streaming systems. However, it is yet to tackle the perverse effects of streaming on classroom composition and student achievement that continues to overwhelm instructional effects in statistical modelling of student achievement. (p.1)

This tension of innovative learning, whilst maintaining very high global test scores with a knowledge-centred instructional approach, is a continued challenge for Singapore.

**A review of global policy and educational trends
for technology integration in classrooms**

Strong policy implementation in Korea

The technology integration path in South Korea reflects many similarities to Singapore. Over the last few decades many government policies have been implemented with a strong top-down approach, including technology in education. South Korea began their integration journey much earlier than other countries, with the first policy agendas evident in the 1980s. This ultimately led to a major initiative in 1995 called the Plan for the Renovation of Education (Hunter, 2015). This initiative propelled the idea of technology integration into classrooms and led to much research in the effectiveness of its use for enhancing the learning outcomes of students.

A decade later, the Ministry of Education developed its five-year masterplan for technology use in education. The aim of the masterplan was to continuously strengthen the South Korean education system through future-focussed strategies in science and technology education that matched the rapid changes in technology advancements in society. More recently, coupled with the implementation of this masterplan, was the development of the SMART (Self-directed, Motivated, Adaptability, Resource-rich, Technology-integrated) Education plan.

This strategy not only included the distribution of technology devices into classrooms across the country, but also completely digitised the curriculum by 2015. The government saw this as a way to make education more efficient and creative to be better prepared for the needs of the future.

However, classroom teachers in South Korea are still building their capacity in understanding what the creative, digitised classroom can yield for their students. Many pockets of schools across the country still value memorisation and knowledge transmission as it helps strengthen their individual and country scores on standardised testing. Again, the tension is evident of a highly publicised testing regime that may stifle South Korea's ability to be seen as the creative and innovative leaders of Asia.

The comparison with Australia

Similarly to the USA, Australia has a layered education bureaucracy where policy is determined at the federal level, but required to be implemented at a state level. This structure causes a divide in curriculum design and its implementation in classrooms across the states, even with an Australian Curriculum in place. At a similar time to the creation of the Australian Curriculum, MCEETYA (Ministerial Council on Education, Employment, Training and Youth Affairs)

developed a series of reports on the effects of teaching and learning with technology (2005; 2006 and 2008) with the most notable being emphasised in the Melbourne Declaration on the Educational Goals for Young Australians (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008). The declaration stated "design and technology are central to Australia's skilled economy and will provide crucial pathways to post-school success" (p.12).

It was from these reports and the declaration that one of the biggest technology reforms in education was developed – the Digital Education Revolution (DER). However, of the $446 million committed to this reform, most of the money was given to hardware and infrastructure for a connected classroom experience to catch-up to other country's technology standards (Howard, Thurtell, & Gigliotti, 2012). This left little money for the development of innovation and capacity development for teachers.

In a review of literature from the AICTEC (Australian Information and Communications Technology in Education Committee) at the end of the DER funding, it was found that teachers "rarely changed the way they taught when they used technology" (Hunter, 2015, p. 15).

However, as the Australian Curriculum continued its implementation journey across the states, more and more schools saw the need for better technology integration to help achieve the required standards.

Within the curriculum itself, ICT (Information and Communication Technologies) is written as a General Capability across all subject areas, alongside literacy and numeracy instruction. Further to this are the continual links to technology in specific areas of design and construction of tasks related to the subject areas. Lastly, is the Digital Technologies curriculum itself, requiring explicit teaching of technology concepts alongside the creative use of technology to develop a product and understand concepts of technology linked various subject areas. With this subject area still to be embedded in many jurisdictions, its full potential to integrate technology across Australia's schooling system has yet to be seen.

With this curriculum created and designed to be implemented across the country, many professional associations have gathered momentum to promote technology integration through professional learning, research and reports. Associations such as ASCILITE (Australasian Society for Computers in Learning in Tertiary Education) and ACCE (Australian Council for Computers in Education) have led this work and have shown over time, to most recently,

that technology is making a difference in students' learning while citing the importance of school leadership and the positive beliefs of the community about technology as two key drivers for change.

What does this mean for Australia's future?

Historically, Australia has looked to the US for guidance in future directions for education, however given both Australia's and USA's declining global assessment results, focus is shifting elsewhere. It is clear that while various countries across the world have seen policy agendas of varying effectiveness and implementation strength, there is a commonality in the continual tension between meeting high test score status and being able to focus on a highly innovative and creative curriculum that will meet the needs of our societal future.

Observing the South Korean and Singaporean policies on technology education over time, there is the possibility for Australia to develop and promote a transformation of education through technology. However, both of these countries have succeeded through countrywide implementation of those policies with strong commitment at all political levels. With the disparity between federal policy creation and implementation across Australia, it will continue to be difficult for Australians to evidence a united change in

both testing results and in a future-focussed curriculum.

Without this availability of strength at a federal level, schools, sectors and jurisdictions will continue to foster the technological approach they deem most appropriate. While this will work in pockets of communities across the country, a wide-scale impact will be almost impossible to realise.

All is not lost, however. To take the learning and development from other countries at a macro level, schools can translate this learning to the micro level of their individual school. With the principal as the "policy leader", what strength and support can they put behind their reports and initiatives for technology integration across the school? And how can they balance the need for good testing results that are highly publicised with the need for an innovative and creative curriculum? Developing a comprehensive plan for technology integration that incorporates these questions, alongside the learnings of other countries, such as a strong leadership drive that filters through all layers of the school, will be a difficult task for schools. But ultimately, it will need to be a consideration so as to not be left behind in the continual progression of technology integration in leading schools and countries across the globe.

Leigh Williams
Assistant Director
(Teaching & Learning)

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