Premier’s Xstrata Coal Rural and Remote Education Scholarships

Keeping the Best and Brightest in the Bush

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Introduction and Study Aims

There has been a phenomenon observed for decades by people in rural and regional communities, which has seen a significant ‘brain drain’ from rural and regional areas (Brett, 2011). This has been due in part to educational opportunities available in metropolitan areas that have not been available in rural and regional areas. The lack of a large cohort of similar ability students has seen many parents send their child to a boarding school, often in a metropolitan area. There is also the tyranny of distance endured by many rural and regional families (Australian Government, 2011). This practice has an impact on the family unit as well as the capacity at local schools. This in turn has an impact on how inviting a position gained at a particular school may be perceived by prospective staff not only at the local school but in the wider professional community.

In 2008, then Premier, The Hon Nathan Rees announced more student places for selective high schools (NSW DET, 2009). In addition, it was determined that these student places were to go to schools in rural and regional areas. Selective high schools group together students of similar high academic ability. Every other school region in NSW chose to provide their selective high school student places at an existing high school, making it a partially selective high school. Western NSW Region decided to make their places available at a virtual selective high school. This was because if it were situated in any high school in one of the Region’s large population centres, it would disadvantage more students than it would advantage. By making the provision virtual, a selective high school education was available to any student attending a government high school in the Region by using technologies made available through the Digital Education Revolution.

This unique set of circumstances then gave rise to the questions: what is happening with gifted education and virtual education in other parts of the world and what can be learned from this? Certainly, there is prolific research into gifted education and a developing body of research into virtual education but a search for recent research into the particular combination of virtual gifted education provides only a handful of articles.

The study tour aims were to look at gifted education and virtual education in a number of countries to determine if some practices were transferable to an Australian context. If these practices could keep gifted students in their local community and in their family home, this could possibly help prevent the ‘brain drain’ that has been occurring for decades.

The Tour

The tour extended over four continents with strategic places chosen to visit. Initially the tour was to take in a school in London that has won the most improved in external exams for the last four consecutive years; however, this school could not be contacted after the London riots of June 2010. Another institution in Ireland was chosen instead.

**Iowa University and Belin-Blank Centre for Gifted Education Research**

[This centre](https://education.uiowa.edu/html/belinblank) is widely known the world over for their research into gifted education in a rural setting. The centre has a library stocked only with books and articles on gifted education. My contact at the university had very kindly arranged for lunch with a different set of people each day. This informal brief contact actually gave rise to some extra information not available in a book or research article. The most relevant was Invent Iowa – a competition for young people to invent something new after tuition in the invention process. As the competition was in the final stages of judging I was unable to see specific entries due to confidentiality but the judges happily shared their joy and wonder at the resourcefulness of ‘farm kids’ to determine a need, then to use the tools available in the farm workshop (welders etc) to build their invention. Inventions ranged from a tool to paint the high and small parts of the silage columns to prevent rust to a way to collect, compost and distribute manure from the chicken pen. The process had several layers of complexity that would appeal to gifted students – a need had to be identified and described, a design had to be drawn, the invention had to be constructed to a specified budget and finally a movie of the invention in action had to be submitted. This integration of real life problems of interest to gifted rural students with technology to share their understanding was a wonderful demonstration of catering for the needs of gifted students in their own setting and at the same time providing information on the creativity process.

I attended two lectures. One for undergraduate teachers on using art to engage students in Mathematics and the other a lecture to honours students on the research into matching students with a mentor prior to starting their practicum at the school. Both lectures gave insight into possibilities for Australian contexts. In particular, the need to search for a match between pre-service and in-service teacher mentors for the student teacher to gain the most from their placement.

I was able to interview Dr Clara Baldus who has conducted a series of online advanced placement courses for students across USA for 12 years (Advanced Placement Courses, 2011). Dr Baldus was able to provide excellent information for use in our context some of which I emailed back to my supervisor immediately. These were around the requirements for schools to support students studying online to ensure they received everything they needed. In particular, the need to gain a written commitment for the school principal as to the support mechanisms they will ensure at their school for the student completing the advanced placement course. Dr Baldus considered [Apex Learning](https://www.apexlearning.com/advanced-placement) the best provider or course materials for their purposes, however there are many other vendors that could also provide this style of material.

The final part of this visit was to spend several days reading in the library. Articles collected were mainly around the creativity of teachers and the impact of using creativity in the classroom as an aide to teaching and learning in addition to persistence in online learning, teaching high ability Maths and Science students and the connection between student achievement and teachers of the gifted. There is a significant body of research now to describe the best-fit teacher of gifted students.

New York City and New York State Education Department (NYSED)

I was able to visit a [school](http://www.nysed.gov/) in south Bronx that was using blended learning as their delivery method for science. Materials were purchased from 3P Learning for use in the classroom. Teachers reported that students were more highly engaged in science with the inclusion of an online component as part of the delivery method. There was the possibility to use the complete set of materials without teacher input; however, both staff members were extremely proud of their craft as professionals and preferred to tailor the materials to suit their students and the current topic of study. The teachers were to attend a vendor fair - vendors being companies that compose online or blended learning materials for purchase to use in classrooms. Examples of vendors include [Apex Learning](http://www.apexlearning.com) or [Pearson](http://www.pearson.com).

The visit to NYSED provided a stunning view into a program that would translate to the Australian context very well. I visited a senior high school class in the [Wayne-Finger Lakes region](http://www.wflboces.org) who was completing an advanced course on anatomy and physiology. All students intended to follow a career in the health professions and attributed their interest to being part of this program. All were preparing to return to a rural area on completion of their university studies. The class took part in rounds with the doctors at a local hospital once per month and volunteered for another session each week for duties such as feeding patients, changing beds, showering patients or reading to those with poor eyesight. The development of these ‘soft skills’ for health professionals combined with the advanced anatomy and physiology class were considered by all students to be helpful in their future careers. Some were able to gain advanced standing for their intended university medical training while others did not gain official recognition, but agreed their current course would make it easier at university. They were required to wear scrubs for their practical classes and to my great amusement they had printed across the front *Trust me, I’m* ***pretty much*** *a doctor.*

Sutton Park International School, Dublin, Ireland

This [school](http://www.suttonparkschool.com/suttonparkschool/Main/Home.htm) had a wonderful school-wide differentiation model that was undertaken by each class from Kindergarten to A Levels. At the beginning of each lesson/topic, students and the teacher would discuss the topic in general terms. The discussion would allow those students who already knew the material to show what they knew and those with no prior knowledge to be identified. From that, the teacher would then send each student on an individualised path of learning for the day or topic. The process was defined in the school as ‘circle time’ and was adhered to by all staff and all students. The joy for learning and the absolute understanding that there was no need to redo something already understood created a very special atmosphere. In addition in the foyer were posters from past graduates of the school with information of where they were now and how they felt Sutton Park School had prepared them for life after school.

The most outstanding part seen was the Design and Technology teacher’s program for Year 10 equivalent. This class used [SolidWorks](http://www.solidworks.com) software program combined with architecture, history, tourism and travel to investigate the buildings of a city including the architect, the materials and the history around the building and society at the time. Students then used the software to generate an image of their chosen building. The culmination is a visit to the city where students then guide the rest of the class through their building giving the history and architectural features. This was significant because the year was considered a ‘nothing’ year by students (no external exams) so this highly engaging course kept them motivated.

Colaiste Bhride Presentation School, County Dublin, Ireland

This [school](http://cbcarnew.ie/wp/) was part of a pilot program where the school had been provided with a 100MB data service to the front gate to entice the school to incorporate more technology into teaching. The school had one Connected Classroom (CC) as did a sister school closer in to the centre of Dublin. Even though the school was large they had not been able to offer an Advanced Maths class the year before, however the sister school had. The students at this school had been able to take part in the advanced Maths class because of the existence of the CC. This provision will provide many more opportunities to the students at this school as the technology becomes more wide spread and adopted throughout the school system.

Hussein Jubilee School of Excellence, Amman, Jordan

This [school](http://www.kinghusseinfoundation.org/) caters for 350 gifted students in Jordan from Year 9-12 (equivalent) and also provides a resource/training centre for staff from the Gulf Region. In addition, they take a Robotics course out into poverty pockets in the Gulf Region for a workshop experience for students. The school is also the site for the shared resource of a Science Garden also funded by the Hussein Foundation. The Science Garden is available for use by all schools in the surrounding area and allows life size investigation of a number of motion and energy principles.

The school had a very wide variety of enrichment opportunities from web design competitions, to Formula 1 (as done in Australian schools), Maths and Chess clubs, Mock United Nations Association (MUNA) and a Youth Council. The students seemed very happy and engaged in what they were doing. I observed an English language class where students were studying the language through literature. The book currently under study was *Lord of the Flies* with students displaying incredible command of the English language. Response to teacher questions was in-depth with use of metalanguage that would rival native speakers of English. This method for teaching language was used extensively throughout the school. The attached centre for teacher training was used as a resource centre as well as a training facility. A group of teachers from Saudi Arabia were there at the time of my visit. They were undertaking courses in identification of gifted students and differentiation in the classroom.

This school expressed a very keen desire to start a collaborative project with students from Australia – perhaps a joint project on the environment – to build cross-cultural relationships and understanding between gifted students.

The entry methods and induction of new students were of particular interest and relevance for me. Students attended a 2-3 week course as induction into the school and were given specific support strategies for homesickness (for the 10% boarders) as well support to understand their own giftedness.

Hong Kong Academy of Gifted Education

This [non-government organisation](https://www.edb.gov.hk/) offers extension and enrichment courses after school hours to Hong Kong (HK) students as well as information to parents, professional learning to teachers and conducts original research into gifted education. It has a large budget from a combination of philanthropy and government contributions. The Academy is the main provider of extension opportunities in HK and is widely used by local schools for professional development in gifted education. Classes are highly oversubscribed and it is an aim to allow all qualifying students the opportunity by appointing more teachers with the capacity to extend students. Students attend face to face sessions on a Saturday with materials placed on a Moodle site during the week. With a strong focus on medicine or business as a career, many courses cater for this local interest. In particular, advanced classes in Maths were popular. The Academy aims to raise the local opportunities and capacity of teachers through Continuing Professional Development (CPD). The combination of this all in-house was similar to the Jordan experience. The connection between schools/parents and research is one that works very well together for putting the research into practice and gaining feedback from all stakeholders.

English Schools Foundation, Hong Kong

These [schools](http://www.esf.edu.hk/) offer a broad education for students but entirely in the English language. Students that attend these schools are immersed in the language from an early age and complete all subjects to meet leaving qualifications for United Kingdom education standards. Gifted education is a recent focus for these schools and there has been considerable effort applied to training staff using the University of New South Wales course available on CD. I was able to visit a school to see first-hand student centred learning (a new phenomenon in HK schools) as well as listen to staff that had been trained in identification of gifted students. There seems to be a move to incorporate more gifted education strategies over time in this group of schools.

Findings and Recommendations

This study tour allowed me to gain some insight into the possible strengths and future direction of both gifted education and virtual education. It would appear that Western NSW Region is well ahead of many places globally in developing this style of education. However, there is something to be learned from all places visited.

Findings

1. Creativity will become a more valuable commodity over time. It is through creativity that new things, new ways and new understandings will be generated (Henshon, 2009).
2. Successful teachers of gifted students are highly creative people themselves (Bramwell et al 2011) and are often highly gifted individuals (Chan, 2011). By ensuring a support mechanism for these teachers and training opportunities so staff can recognise their own creativity, Australian education will remain at the business end of the Program for International Student Assessment (PISA) scale.
3. There is considerable need globally for centres of excellence in gifted education. Several countries/territories in the northern hemisphere (Singapore (2011), Jordan (2011), UAE (2011), Hong Kong (2011), have set up, or are in the process of setting up, these centres. Such a centre in regional NSW would be of particular benefit to students and staff.
4. The Wayne-Finger Lakes model for advanced courses in health sciences has much to offer regional Australia by possibly enticing more rural students into studying health professions. By making them aware of the opportunity at an early age, then offering guidance through the process of further learning, perhaps the critical shortage of doctors in regional NSW can begin to be addressed.

Conclusion

Keeping the best and brightest in the bush can be achieved if we keep doing what we are doing in Western NSW Region with technology and adopt some suggested strategies from current research into creativity. There is a great need to include more technology and gifted education strategies into teacher pre-service training. This study tour showed that other places in the world are focussing on developing their gifted students at a rate not before seen. It is essential Australia continue to cater for the needs of these students and provide the support structures that will allow for excellent performance, so we can support one of the groups of people with whom the hopes and needs of a nation will be focussed in the future.

Interagency cooperation and development of a shared strategy will benefit gifted students in rural and regional NSW.

Post Script

Since completing my Premier’s Scholarship tour, I have presented a symposium in Dubai at the Asia Pacific Conference on Giftedness. 1200 delegates from 42 countries attended the conference. Four symposia ran concurrently each morning for 4 days. 300 delegates attended the session I spoke at with huge interest shown in the methodologies used by xsel WNSW Region Virtual Selective High School Provision. The session was translated live. As requested by the organisers, I repeated the session the following day for people that could not attend on the first day. It was an enormous privilege to speak about keeping the best and brightest in the bush in such an international setting.

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