Premier’s **PwC Leadership** Scholarship

Creating World-Class Entrepreneurial and Asia-Literate Learners

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Background information

My study tour builds on the current research into school leadership practices that are imperative in leading change in schools to meet the demands of global learning and how schools embed innovation, emerging technologies, changing pedagogy and curriculum demands to build global learners (Lee and Ward 2013). Fullan, in his book *Stratosphere* (2013), reiterates the need for technology and pedagogy as global partners in transforming schools to meet the future demands of learning. The interest in ‘teachers work and school change’ to build successful global learners is foremost in all principals’ thinking

A number of educational thinkers and writers are challenging the traditional in favour of creative and entrepreneurial skills to drive student skill development to be global learners. Zhao (2012) reiterates the need for education systems to build entrepreneurial, creative world-class learners who have the skills to thrive in and beyond the 21st century. The influence of Zhao’s work and the schools that are identified as being ‘alternative’ lighthouse schools with courageous visionary educational leaders that are preparing their students for the future inspired this research (Zhao 2012).

The research was to gather information and examine successful school leaders and their skills and practices from Indonesian, Chinese schools and from lighthouse schools based in the United States. The success of the Shanghai Education system was investigated, in which Zhang Minxuan from Shanghai Normal University was interviewed about Shanghai joining the Programme for International Student Assessment *(*PISA*)* and its success.

The context of change in NSW Public schools and the implementation of the NSW Board of Studies National Curriculum could be informed by research into school principals’ professional practices and skills to lead improvement, innovation and change.

Tour Highlights and Research Methodology

A review of relevant literature and reports was undertaken to identify key areas of skill and professional practice associated with leading schools where students have an opportunity to become Asia-literate and entrepreneurial. In particular, Professor Yong Zhao’s 2012 research on world-class learners was pivot to my research.

Key educational contacts were identified, which included five universities: Shanghai Normal University, the Institute of Global Chinese Language Teacher Education at East China Normal University, Yogyakarta State University, High Tech High Graduate School in San Diego, California, and the University of Oregon School of Global and Online Education, in Eugene, Oregon. I also attended the eight-day International Conference for School Effectiveness and Improvement 2014 (ICSEI) in Yogyakarta, Indonesia.

In addition, contact was made with eight varying school districts across Indonesia, China and the United States to interview their superintendents and principals. These were Indonesia (Bantul Area) Schools SMP 1 Bantul and SMP 2 Bantul; in China, Beijing Academy, Beijing, and Nanyang High school, affiliated to Shanghai Jiaotong University; in the United States, West Linn-Wilsonville School District, West Linn High School and Wilsonville High School in Portland, Oregon, High Tech High in San Diego, California, and the Oxford Community Schools, Oxford High School in Oxford, Michigan.

I visited all of the universities listed, plus school districts and schools and conducted structured interviews with superintendents, principals and lecturers. Extensive interviews with a number of leading principals, both overseas and within Australia, and with Professor Yong Zhao and attending a three-day winter residency and workshop with students and teachers at High Tech High proved highly valuable in my attempts to gather evidence to substantiate the skills and practices of the school leaders. In particular, I gathered evidence of innovation, school improvement and substantial change toward providing successful Asia-literate global learning for the students in the schools visited.

From the evidence gathered during the tour, patterns of similarity emerged and lists were formed for analysis to identify a consistency of leadership skills and practices.

The interviews were video recorded and substantial qualitative evidence was gathered in the form of photographs, and in student and teacher interviews about school programs and structures. The evidence gathered gives excellent contextual information for principals, which may be valuable for similar initiatives and programs to be used in a New South Wales.

Significant Findings

What leadership skills and professional practices support the building of Asia-literate entrepreneurial global learners? The responses to this question were identified under the following headings and they are placed in hierarchical order. These findings are substantiated with the school programs and structures embedded in each of the schools and school districts.

The following leadership skills and practices were identified as being imperative to successfully building Asia-literate, entrepreneurial global learners:

* 1. educational vision and knowledge for global learning
  2. personal qualities that support innovation in learning
  3. networking by leaders, using champions for organisational change and mentoring systems with a focus on quality teaching
  4. professional learning communities within the school and beyond
  5. school structural reform in the support of Asia literacy and creating entrepreneurial and global learners
  6. innovative interpretation of the curriculum with a focus on pedagogy
  7. resource management
  8. personal use of emerging technologies in leadership.

In addition the school leadership develops a global paradigm:

A community of autonomous learners engaged in creating meaningful products located on a global campus is the image of a world-class school following the new paradigm. Zhao in 2012 created a list of indicators that can be used to guide the development of such a school and used as accountability measures for a true world class education.

The research has been analysed to further illustrate these findings.

*Educational vision and knowledge for global learning*

Research, while not surprising, found that the leaders have clear, concise and informed educational vision focused on preparing students for a global world. This articulation was physically apparent in each of the school environs.

* 1. *Innovative programs are implemented across communities of schools.* Fifth Coretm world language and cultural program, equated to each student, starting from kindergarten receiving daily instruction in Mandarin. On graduation each student graduates with a world language having studied Mandarin for 11 years. (Oxford Community Schools)
  2. *A clear and defined vision of global learning is articulated and published.* For example, ‘… creating a world-class education today to shape tomorrow’s selfless, global learners …’ Superintendent Dr. William C. Skilling had a vision and established a focus on high cultural IQ to prepare his students for a global marketplace. (Oxford Community Schools)
  3. *Student led course design.* Students leading learning where there is a focus on entrepreneurship, opportunity and innovation transformed into student led course design. An example was developed at Oregon University College of Education OBA Online Education, a platform where students from schools across the world create courses for other students.
  4. *Real-world problem solving is embedded in learning.* Schools are environments where students own the school and are happily engaged in works that matter. Project/product-based learning is a school focus, where the learner is compelled to think creatively to solve real-world problems. (High Tech High School)
  5. *Establish school principles that respond directly to student need.* The best example was at High Tech High where the four design principles: personalisation, adult world connection, common intellectual mission and teacher as designer. Responding directly to the needs of students, all four principles connect to the broad mission of preparation for the adult world.
  6. *Creating a culture and shared purpose.* The visited schools emphasised experienced leadership, reflective practice, and peer learning, all in the interest of an evolving sense of shared purpose. For example HTH employ a ‘mitochondrial’ strategy to create new schools.

*Personal qualities that support innovation in learning*

Leaders interviewed had a focus on established protocols for learning for both teachers and students. They were passionate and courageous with a world view about what students needed to have to be global learners. They had invested in gathering the right combinations of staff in their schools and there was an established culture built on innovation, strong relationships and perseverance with disciplined creativity.

* 1. *Developing unique and diverse talents in staff.* Teachers are encouraged to foster their own passions through the curriculum. Built around people, finding the best people, the champions and mentoring, to build the strengths and passions of staff. (Oxford High School)
  2. *Collaborative learning by staff embedded in practice.* Established protocols for reviewing and discussing students’ work, and preparing team teaching programs and assessment. (High Tech High)
  3. *The Globe is the campus.* Students are encouraged to build global competencies by helping others, rather than in competition. Students work collaboratively with students across the world on common projects establishing a global perspective. (Oxford Community Schools with Cherwell in the UK, Institute of Global Chinese Language Teacher Education, East China Normal University)

*Networking by leaders, using champions for organisational change and mentoring systems with a focus on quality teaching*

Throughout the schools visited the leaders established tools for transforming the schools’ culture and enriching professional interactions. These structures were supported by protocols of inquiry orientated professional learning tools within a high performance workplace to enable schools to successfully teach all students to high standards.

* 1. *A sustained organisational culture focused on global learners.* Leaders implemented organisational culture and work processes that supported innovation, the work of champions and early adaptors. Evidence was seen in each of the schools visited.
  2. *Established protocols for improving teaching practice for professional learning.* Professional learning is collaborative, shared and facilitated to improve all aspects. (High Tech High) (McDonald, Mohr, Dichter and McDonald 2012).
  3. *Partner and team teaching established as norm.* Grouping and naming of collegial groups established as ways of learning. For example, the Pioneer Learning Group established to drive 21st century skills at Inza Wood Middle School, Wilsonville, Oregon.

*Professional learning communities within the school and beyond*

All the schools visited had a strong emphasis on mentoring, partner teachers and learning communities. In particular, the Graduate School at High Tech High and the International Program at Oxford Community Schools all reflected established educational academic writing as part of a teacher’s reflection, development and learning.

* 1. *A culture of academic research and writing is encouraged.* The publishing a peer reviewed journal, *Unboxed: A Journal of Adult Learning in Schools*, from High Tech High was exemplar.
  2. *Global Collaboration as part of professional learning is normalised.* Such strategies as ‘collegial conversations’ online using +such programs as Elluminate and TeachMeet for professional development by teachers, for teachers, was part of the dialogue at the schools visited.

*School structural reform to support of Asia literacy, entrepreneurialship and global learners*

In each of the schools and districts bar one, there were obvious structural reforms in school organisation. Schools within schools were established as larger schools saw this as an opportunity to ensure care and cohesive relationships. Establishing innovative programs to broaden the curriculum and foster disciplined global skills, in particular learning global languages from kindergarten to year 12.

* 1. *Establishing international learning partnerships.* Northeast Yucai Education Group, Oxford Community Schools and Beijing Channel Consulting have a cooperative agreement committed to a school that provides quality education and educational resources for students in the United States and China. The schools share methods of managing advanced education, provide outstanding teachers and quality teaching resources, and promote educational exchanges between the schools. Students spend time in each of the schools acquiring both an American certificate and Chinese qualification. ([Oxford Community Schools](http://oxfordschools.org/section_display.cfm?section_id=1782))
  2. *Secondary schools with graduate schools within the context of the school.* For example, at the High Tech High Graduate School the mission parallels that of the High Tech High K-12 schools: to provide all students with an extraordinary project-based education and to graduate students who will succeed in post-secondary education and be thoughtful, engaged citizens.

*Innovative interpretation of the curriculum with a focus on changing pedagogies*

In each of the schools visited, there was an emphasis on project-based learning in various forms and in varying degrees to build meaning in the curriculum. The common aspect in each model was reasoning over remembering information.

* 1. *Product or project-based learning*. This approach to learning changes the orientation of the learner from the recipient and consumer to the creator and provider. Project or product-based learning is secured firmly in the real-world audience. (High Tech High, Cal Tech High and Wilsonville High).
  2. *Assessment is performance-based, product focused and student-led.* In student-led learning, students develop the projects, solve the problems and present the findings. (High Tech High and Inza Wood Middle School, Wilsonville).

*Resource management*

Leaders in all the schools and school districts interviewed have a clear strategic plan for resource management. In particular, staff recruitment, professional learning and ongoing staff development was a crucial part of resource management.

* 1. *Staff recruitment was focused on matching school and staff in a shared vision.* Recruitment practice was built around high expectations of staff, certain school wide pedagogy (for example, project-based learning) that focused on global skills as defined for this research. It was a localised system that was evidenced in all three school districts.
  2. *Technology resource management was a priority in all schools*. Specific teams were established to innovate and manage the hardware resources for each school. The director of technology led the innovations in the district, from the virtual academy, school implementation with staff, through to the collaborative links with China. (Oxford Community of Schools)
  3. *Innovative learning* *spaces*. In nearly all the schools visited, learning spaces were highly varied. The designs were user friendly, welcoming and in my observation places of personalised learning where students had the freedom to choose the space that best suited the learning task at hand. (Oxford High School, High Tech High and Cal Tech)

*Personal use of emerging technologies in leadership*

All the leaders interviewed were asked about their personal skills in using emerging technologies. There was no conclusive evidence to support the personal use of emerging technologies as a necessary skill or practice in successful school leadership.

Comprehensive use of collaborative online spaces for student work was impressively supported. (High Tech High being the exemplar, along with OBA Education, Oregon University)

Implications and Conclusion

Across all the selected schools visited in Indonesia, China and the United States, leaders were endeavouring to move their schools through a paradigm shift, both structurally and educationally, to prepare their students for global learning. There was a clearly articulated common purpose.

Leaders must, most importantly, have a clear informed **innovative vision** which is supported by protocols, pedagogies and practices inherent in all operations from classrooms to community. There must be a focus on leading schools that authentically prepare their students for successful careers and opportunities, not just pushing through the curriculum. The school must operate with a real-world paradigm and leaders need to ensure that their school does this in its daily practice.

Leaders need to apply **consistent use of mentoring**, team teaching, coaching for teachers, and build this into the daily operation and structures of the school. Professional learning should allow teachers to explore their own questions through action research and other forms of inquiry, and they need to develop digital portfolios to demonstrate their learning.

Leaders must **ensure the curriculum** has a focus on real-world learning and global connections and that ‘normalising of technology’ is used to support problem-based learning that is facilitated through enquiry and design protocols. Timetable assumptions need to be challenged.

Leaders should ensure the **ongoing development of the role of student–teacher** **relationships**, innovative use of classroom space, use of digital portfolios, professional learning through enquiry, real-world learning and innovation that challenges the common assumptions of schools, teaching and learning and the role of the student and teacher.

While the context in NSW Schools may vary slightly from the schools visited, the common goal is the same, to build entrepreneurial global learners. All the schools visited were on a journey to fulfil this goal. It was evident that ongoing reflection, adaption, and was part of the schools day-to-day practice and part of each leaders focus for improvement toward the goal.

Recommendations

* + Foster, mentor and support innovative school leadership in schools that challenge common assumptions of school management and learning.
  + Support further research into school structures and practices that build world-class learners.

Rigorous research studies and internships for principals to learn from other school systems which are required to develop a greater knowledge about school-level global learning and leadership in this area.

* + Support and develop a structure for genuine networking of school leaders to build collectives of knowledge and vision to support the implementation of innovative school structures.
  + Establish genuine links with successful global schools and school district leaders to inform the understanding of school practice to build global learners. Understand and build a vision from these experiences.

Throughout the selected schools visited in Indonesia, China and the United States, it was clear that the leaders in each of the schools had a strong understanding of what needed to be done to build global learners. Our school leaders and schools can benefit from these experiences.

* + Act, share and encourage rigorous research of educational practice. Establish best practice schools and school districts that foster innovation, inquiry learning, global and real-world focus.

Schools and leaders need to focus on the importance of global learning with staff and students to prepare students for the world beyond schools.

* + Establish school structures that support global learning with an inquiry-based individual approach to school life.

This would include evaluation of timetable structures and conventions, faculty and staff groupings to support inquiry-based learning, professional learning structures and curriculum development.

* + Establish real-world links to support the curriculum with the world beyond the school.

Establish mechanisms for teachers and students to connect their studies to the world beyond school through field studies, community service, internships, and consultation with outside experts as matter of everyday practice. Students should routinely create work for authentic audiences and exhibit that work in professional venues. Prepare opportunities for students to complete substantial internships in the world of work and service where they develop projects that contribute to the workplace.

Glossary

The redefinition of entrepreneurship. The world Economic Forum defines entrepreneurship as:

‘… a process that results in creativity, innovation and growth. Innovative entrepreneurs come in all shapes and forms; its benefits are not limited to start ups, innovative ventures or new jobs. Entrepreneurship refers to an individual’s ability to turn ideas into action and is therefore a key competence for all, helping young people to be more creative and self confident in whatever they undertake.’ (World Economic Forum, 2009, p.9).

[21st century skills](http://www.atc21s.org) defined from the Learning and Technology World Forum 2010:

* + **ways of thinking:** creativity, critical thinking, problem-solving, decision-making and learning
  + **ways of working:** communication and collaboration
  + **tools for working:** information and communications technology (ICT) and information literacy
  + **skills for living in the world:** citizenship, life and career, and personal and social responsibility.

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Assessment and Teaching of 21st Century Skills Website, <http://atc21s.org/index.php/about/what-are-21st-century-skills/> Viewed 9/05/2012.

**School, University and District Websites**

Oregon University, Eugene OBA ONLINE: <https://www.obaworld.net/welcome/>

High Tech High: <http://www.hightechhigh.org/about/index.php>

High Tech High Graduate School: <http://gse.hightechhigh.org/about.php>

Oxford Community Schools: <http://oxfordschools.org/index.cfm>

West Linn Wilsonville School District: [http://www.wlwv.k12.or.us](http://www.wlwv.k12.or.us/site/default.aspx?PageID=1)

Institute of Global Chinese Language Teacher Education, East China Normal University, <http://english.ecnu.edu.cn/s/191/t/339/p/10/c/4572/d/4803/list.htm>