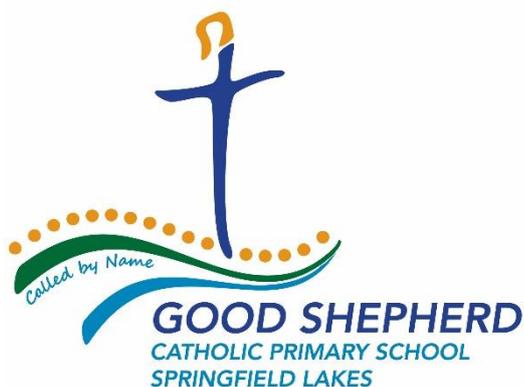# EDUCATION'S JOURNEY TO CONTEMPORARY EDUCATION

GOOD SHEPHERD CATHOLIC PRIMARY SCHOOL – SPRINGFIELD LAKES

EDUCATION'S JOURNEY TO CONTEMPORARY EDUCATION

ABSTRACT

The purpose of this paper is to capture an understanding of contemporary education viewing it through a history of learning that spans 200 years to the present in Australia. This history includes many and varied changes over the years and more recently, the introduction of the Australian Curriculum. Additionally, important to contemporary education is the Melbourne Declaration on Educational Goals for Young Australians which states that it commits *"to supporting all young Australians to become successful learners, confident and creative individuals, and active and informed citizens",* (1) and to promoting equity and excellence in education. Justifiably, the Australian Curriculum will *"equip all young Australians with the essential skills, knowledge and capabilities to thrive and compete in a globalised world and information rich workplaces of the current century."* (2)

Both the Australian Curriculum and the Melbourne Declaration on Educational Goals for Young Australians create a backdrop to understanding the educational challenges and changes that require all those involved in education to leave behind old assumptions. It is important that we can *"reboot the school"* making it a relevant learning environment for our students today.

Such challenges require the school community to focus on an understanding of:-
- *Personalising learning* and *virtual pedagogy* that recognises living and learning in a technology-rich world.
- *The learning environment* and what it looks like.
- *Design thinking*, a proven and repeatable problem-solving protocol that any business or profession can employ to achieve extraordinary results.

Design thinking immerses our children as creative thinkers who will explore creative (multiple/varied) ways of dealing with solving problems and providing skills to adapt to jobs that do not yet exist.

The paper concludes that the Catholic School approaches to curriculum and pedagogy are deeply rooted in faith, empowering students with the essential knowledge, skills, capacities and capabilities for active citizenship and lifelong learning.

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HISTORY

Schools have existed in Australia for more than 200 years, beginning in NSW and expanding across the country as other settlements started. Public School systems did not begin until considerably later than this, beginning with primary level schools, then expanding into the secondary area beginning in the 1880s. Universities first arose in the middle of the 19th century, with early childhood education in the form of kindergartens and preschools lagging well behind all other sectors.

The first Catholic school in the Archdiocese of Brisbane was commenced by two lay people, Mary and Michael Bourke, in 1845 on the site of the current Myer Centre in Elizabeth Street. Since that time Catholic schooling has expanded its mission in the Archdiocese to teach over 74,000 students in over 150 schools. Twenty of these schools are owned and conducted by religious congregations and over 130 are conducted by the Archdiocese of Brisbane, most of these being parish schools. Good Shepherd Springfield Lakes will open its doors in 2013 as the newest of our Archdiocesan schools.

In the Archdiocese of Brisbane, the Archbishop has responsibility for developing policies regarding Catholic education, regulating it and watching over it. The Catholic Education Council assists the Archbishop in planning and making recommendations about educational policies and priorities. The delivery of services, programs and resources in schools is the responsibility of Brisbane Catholic Education (BCE). BCE is headed by the Executive Director, who is supported by the Leadership Team.

During the 1960s and 1970s a major change occurred in the organisation of Catholic schooling. This was the formation of systems of Catholic schools under the oversight of our bishops. This change was in response to the growing complexity of education, the increased cost of schooling, the need to provide extra places for a rapidly growing population, and the advent of significant government funding. This is the solid foundation upon which our Catholic schools have been built. This is the platform from which we move forward to address the challenges of the twenty-first century. (3)

The Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA)

In order to address the challenges of the twenty-first century education a quote from the website on Australian *The Ministerial Council for Education Early Childhood Development and Youth Affairs* (MCEECDYA) Contemporary Learning Framework which explores contemporary approaches to learning and teaching and deepen understandings of key elements of contemporary learning. "*21st century education integrates technologies, engaging students in ways not previously possible, creating new learning and teaching possibilities, enhancing achievement and extending interactions with local and global communities.*" (4)

Australian Curriculum, Assessment and Reporting Authority (ACARA)

In addition, the ACARA website is responsible for the development of the Australian Curriculum from Foundation years to Year 12. The development of the Australian Curriculum will occur over three broad timeframes and is guided by two key documents; the *Melbourne Declaration on Education Goals for Young Australians* and the *Shape of the Australian Curriculum.* Please log onto the following sites for more information:

- *The Melbourne Declaration on Educational Goals for Young Australians*
- *The Shape of the Australian Curriculum*
- Validation of the Foundation to Year 10 Australian Curriculum
- Phases of curriculum development

The Melbourne Declaration on Educational Goals for Young Australians

ACARA's work in developing the Australian Curriculum is guided by the 2008 *Melbourne Declaration on Educational Goals for Young Australians*.

The Melbourne Declaration commits *"to supporting all young Australians to become successful learners, confident and creative individuals, and active and informed citizens"*, and to promoting equity and excellence in education. The Australian Curriculum will *"equip all young Australians with the essential skills, knowledge and capabilities to thrive and compete in a globalised world and information rich workplaces of the current century."* (5) The Australian Curriculum will be accessible to all young Australians, regardless of their social or economic background or the school they attend.

The Shape of the Australian Curriculum

The development of the Australian Curriculum is guided by the *Shape of the Australian Curriculum*. This document is approved by education ministers to guide the development of the Australian Curriculum.

The first version of the shape paper was published in May 2009, to guide the development of the Australian Curriculum for English, Mathematics, Science and History. At its October 2011 meeting the Ministerial Council for Education, Early Childhood Development and Youth Affairs endorsed a revised version of the Shape of the Australian Curriculum v3.0. (6) The shape paper provides a policy background for the implementation of the first phase of curriculum development and guides the further development of Australian Curriculum. The revised version provides information about:

- The design of the whole curriculum and implementation of the *Foundation – Year 10* (F-10) Australian Curriculum
- Achievement standards and their relationship with curriculum content within the Australian Curriculum
- The provision of curriculum for students with disability.

Validation of the Foundation to Year 10 Australian Curriculum

- The Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) endorsed the Foundation to Year 10 Achievement Standards for English, Mathematics, Science and History at their meeting on 14 October 2011.

A validation report (7) documenting the Foundation to Year 10 Achievement Standards can be downloaded.

ACARA has identified three broad phases of curriculum development:
- Phase 1 – development of the Australian Curriculum for English, Mathematics, Science and History (8)
  (F-10 published 2010; 11-12 in development) (9)
- Phase 2 – development of the Australian Curriculum for Geography, Languages and The Arts
  (in development from 2010) (10)
- Phase 3 – development of the Australian Curriculum for the remaining areas identified in the Melbourne Declaration on Educational Goals for Young Australians (in development from 2011) (11)

The Foundation to Year 10 Australian Curriculum for English, Mathematics, Science and History is now available online. Please click here. (12)

GENERAL CAPABILITIES

Twenty-first century learning does not fit neatly into a curriculum solely organised by learning areas or subjects that reflect the disciplines. Increasingly, in a world where knowledge itself is constantly growing and evolving, students need to develop a set of knowledge, skills, behaviours and dispositions, or general capabilities, that apply across the curriculum and that help them to become lifelong learners able to live and work successfully in the diverse world of the twenty-first century. The general capabilities included in the Australian Curriculum are:

- Literacy
- Numeracy
- Information and communication technology
- Critical and creative thinking
- Personal and social capability
- Ethical behaviour
- Intercultural understanding.

In the Australian Curriculum, the general capabilities are addressed through the learning areas and are identified wherever they are developed or applied in content descriptions. They are also identified where they offer opportunities to add depth and richness to student learning in content elaborations for example "*design thinking*". *(See page 9).*

In addition, ACARA has published a set of general capability materials on the Australian Curriculum website. These materials are presented as a resource to help teachers: [13]

- Develop a shared understanding of the nature, scope and sequence of the general capabilities in the Australian Curriculum
- Confirm their understanding of intended learning wherever general capabilities are identified in learning area content descriptions and elaborations
- Plan for and guide students' development of the general capabilities in school and classroom learning programs.

THE GREATEST CHALLENGE FACING EDUCATORS

The greatest challenge facing educators is to meet the needs of the diverse range of students. The kind of lesson many people recall from their school days is the one where the teacher stood at the front of the class and delivered the content scheduled for that day. The challenge for teachers today is for teachers to cater for the range of development and not just to teach for the mid-range of the whole class group.

First, teaching in isolation is no longer defensible or realistic. Teaching teams, however organised, provide professional collaboration, observation and feedback to enable teachers to manipulate the learning and teaching environment and scaffold learning for every student, whatever the student's developmental stage or abilities.

Explicit or direct teaching and the use of digital technologies are some of the tools applied by teachers in meeting the needs of their learners.

The **Time Magazine** article (July 9 2012) entitled **'Reboot the School'** details the work of Selman Khan, a 35 year old hedge-fund manager, turned *YouTube* professor. [13] His on-line repository consists of 3250 digital lectures. Beyond the use of *YouTube,* he has provided educators with a new direction. With his video-driven teaching method at its heart, he wants to change the role of teachers in the classroom. I recommend any teacher or parent, in particular, to read this article in its entirety. There is one compelling quotation which involves *'flipping' 800 years of teaching practice'*. [14]

In Khan's view, there is no need for students to be divided into grades by age. Instead, they should learn at their own pace, moving on to the next lesson only when they have mastered the concept before it. (See separate article: *Reboot the School*) (15)

Second, the concept of the 'flipped' classroom means that students would watch the videos as homework, then go (next day) to the class to demonstrate their learning. The teacher's role is fundamentally changed. The teacher's time is spent largely on working with individual students. The teacher would check on their understanding and allow students guided practice in acquiring the concept or deepening their knowledge of the concept covered in the homework video, through independent practice.

Third, schools have moved past the simplistic view of teachers as passionate information transmitters. According to a recent landmark project, 'Assessment and Teaching of 21st Century Skills' *Assessment & Teaching of 21st Century Skills* (ATC21S), www.atc21s.org (16) led by the University of Melbourne, today's young people will need 21st century skills such as critical and creative thinking, communication and ICT literacy. Important for future teaching, it concentrates on improving teacher skills in collaborative problem solving and collaborative *Information Communication Technology* (ICT) literacy.

Finally, schools need to embrace learning frameworks which not only harness technology in explicit teaching, but which would then allow teachers to track and monitor each student's progress, using technology, so that teachers know where to direct their attention. Selman Khan concludes:

> *There's no more teaching to the middle: from the bottom to the top, all students work at their own pace.* (17)

We need to learn new ways. How and when learning occurs becomes as important as what is learnt. The simple appeal of Khan's videos means that once a student is on-line, they are available, free, to anyone at any-time. The challenge to schools and teachers is to engage in new ways of practice which enable personalised learning to become a reality.

PERSONALISED LEARNING

Another term used in contemporary education is personalised learning. There has been much research on the concept of *Personalised Learning* which consists of five core elements
1. **Assessment for learning** and the use of evidence and dialogue to identify every Student's learning needs
2. **Learning and teaching strategies** that develop the competence and confidence of every learner by actively engaging and stretching them
3. **Curriculum entitlement and choice** that delivers breadth of study, personal relevance and flexible learning pathways through the system
4. **A student centred approach to school organisation,** with school leaders and teachers thinking creatively about how to support high quality teaching and learning
5. **Strong partnerships beyond the school** to drive forward progress in the classroom, to remove barriers to learning and to support pupil well-being. (18)

VIRTUAL PEDAGOGIES FOR CONTEMPORARY TEACHING

In today's education setting it is important to recognise that living and learning in a technology-rich world changes everything. Well it should… but too often, the results haven't always been as expected. The living part is of course, the way we all now complete our daily routines; there is nothing we do that is not touched by the existence of technology in every facet of our lives. It's the learning part that is problematic. We've lived in a technology-sparse environment in education

for so long that we have forgotten what expectations we might have had at one time for how learning would be transformed as technology immersed our schools, and beyond.

LEAVING BEHIND THE OLD ASSUMPTIONS

On one level we should not be surprised, because it has taken us so long to leave behind old assumptions about technology access belonging to a lab or being shared, rather than being a truly personal experience. We will surely look back in years to come and wonder how we ever believed the learning environments for young people at the end of the first decade of the 21st Century should not have been truly technology-rich. But such has been the (mis)fortune of students and educators alike, who now have the good fortune and opportunity to break new ground, discover new possibilities, as they re-conceptualise the nature of teaching and learning in a technology-rich learning world. There is so much to explore; so many avenues for ideas… and for many students, so little time; but when setting priorities it would seem there is a somewhat urgent need to better understand the implications for the art and science of teaching and learning within a ubiquitous technology environment.

LEARNING ENVIRONMENT

When we explore how we might best describe a contemporary learning environment, it usually begins by outlining a blend of the physical and virtual space.

What changes when learning and teaching take place in a technology-rich world? Specifically what changes when the medium for learning and teaching is virtual. How does it impact on the norms we take for granted in the physical space, and to what extent does it extend and grant us a more diverse range of possibilities when we are in a virtual place?

Unquestionably, a lot that happens in the virtual space often mimics our face-to-face behaviour, but one only has to consider how technologies such as SMS, Facebook and Twitter have changed how we communicate to contemplate that there might be a lot more that we don't yet understand. In its purest sense, pedagogy does describe the art and science of teaching and learning per se, and yet as we better develop our knowledge around the learning sciences, emerging technologies and new learning mediums, we begin to unfold new and exciting learning dynamics that we should explore and explain.

VIRTUAL PEDAGOGY

One of the most powerful understandings of learning and teaching in Contemporary Education is the notion of virtual pedagogy, which underpins much of what we are trying to describe about learning in a technology-rich world and which also challenges many of our traditional assumptions about effective teaching and learning. Technology exists for learners and seen as both inevitable and fundamental to a young person's right to learn in a digital world.

Furthermore, important to the virtual pedagogy is the agile learning space where teachers and students can collaborate learn together and work together. Many leading educators have documented the importance of agile learning spaces in supporting contemporary learning. In particular believing that the agile learning space is not just about flexibility, but also about the ability for easy and quick configurability to suit the learning need at the time. (19)

Pedagogy can be defined as a combination of knowledge and skills required for effective teaching. Teachers use a variety of pedagogical practices to develop the curriculum intent to provide multiple opportunities for students to engage in intellectually challenging and real-world learning experiences. These pedagogies reflect learner-centred theories of education which require learning to be: individualised and collaborative; experiential, building on prior learning; self-managed and cumulative; authentic; and directed to higher-order problem solving. (20)

Model of Pedagogy

The model of pedagogy provides a common language and process for effective teaching practice across our schools. It aligns with and arises out of the Brisbane Catholic Education Learning and Teaching Framework.

It creates an evidence-based cycle on which teachers can construct their practice to ensure that all students are progressing in their learning and development. (21)

Pedagogical Content Knowledge (PCK)

- Can be defined as a special combination of content and pedagogy that is uniquely constructed by teachers and thus is the "special" form of an educator's professional knowing and understanding.
- Is known as craft knowledge. It comprises integrated knowledge representing teachers' accumulated wisdom with respect to their teaching practice: pedagogy, students, subject matter, and the curriculum. (22)

DESIGN THINKING   4 September 2012

The following information on **You Tube** provides the reader with further clarification of contemporary education. Ewan McIntosh *(Ewan McIntosh is a teacher, speaker and investor, regarded as one of Europe's foremost experts in digital media for public services. His company, NoTosh Limited, invests in tech startups and film on behalf of public and private investors, works with those companies to build their creative businesses, and takes the lessons learnt from the way these people work back into schools and universities across the world)* is seen working with some of our Brisbane Catholic Education Schools. Please click on the following links:-

Audience, Collaborative Learning, Creativity, Curriculum, Design Thinking, Education Research, Media Literacy (23) ,

If you were to look at your school year ahead, and choose only ten things to actually teach explicitly, what would your top ten lecturettes be?

If you could only teach ten points, what would they be? (24)

When we're working with teachers on our take on Design Thinking, (25) one of the hardest concepts of change for folk to get their head around is that teachers can teach a lot less to achieve much more. In that initial "immersion" into an exploratory area, students need plenty of content made available to them, but they don't need to be *taught* it. They just need rich resources and time. Here's how some of our Brisbane Design Thinking School teachers approach that immersion stage, by trusting their students and doing their best to "get out of the way of learning": Immersion from Danielle Carter on Vimeo (26) Brisbane Catholic Education.

CONCLUSION

In conclusion, the Catholic School is a sacred place where faith, culture and life are in dialogue and where learners are empowered to shape and enrich their world with meaning, purpose and hope derived from their encounter with life and the teachings of Jesus.

In this context, approaches to curriculum and pedagogy which are deeply rooted in faith, empowers students with the essential knowledge, skills and capacities and capabilities for active citizenship and lifelong learning. The Australian Curriculum provides our school with the content and in return the school focuses on how it will be implemented so that learning and teaching supports, enables and engages the learner in the contemporary world with a commitment to each of the following:

Learning Opportunities: Rigorous and relevant Rich in assessment: for, of, and as learning Personalised Explicit and scaffolded Equitable	**Learning Environments:** Connected to local and global networks Collaborative Secure and safe Flexible Supportive of innovation Inquiry focussed	**Core knowledge, skills and understanding** developed through: Reflection and planning Thinking and working creatively Communicating and collaborating Exploring, experimenting and creating new knowledge
Developing deep understandings about self, others and the world through: Exploring multiple perspectives Considering religious, social, cultural, historical, political and ethical influences Experiencing, analysing, conceptualising, applying.	**Building Relationships** through: Connecting and learning with others within and beyond the classroom over time and space **Contemporary Literacies** that involve: Developing culturally relevant and valued literate practices Creating and interacting with print, non-print and multimodal texts Engaging critically and effectively in a multi-modal world Communicating appropriately in a range of social contexts.	**Contributing to Community** through: Taking responsibility for self Taking action that matters Committing to service and justice Developing partnerships Active citizenship

Please view the following **YouTube** videos:

http://youtu.be/mCbdS4hSaos Sir Ken Robinson –Changing Paradigms (27)
http://youtu.be/YmwwrGV_aiE DID YOU KNOW? (27)
http://www.youtube.com/watch?v=9ekcWQxgk3k (28)

Powerful learning powerful teaching

Thank you for taking the time to read Good Shepherd's focus on contemporary learning and teaching as well as watching the You Tubes. We look forward to sharing our educational journey with you and your family in order to create future creative thinkers and leaders.

(1) Melbourne Declaration on Educational Goals for Young Australians
(2) Australian Curriculum
(3) Brisbane Catholic Education Website
(4) The Ministerial Council for Education. Early Childhood Development and Youth Affairs (MCEECDYA)
(5) Melbourne Declaration on Educational Goals for Young Australians
(6) Australian Curriculum, Assessment and Reporting Authority (ACARA)
(7) Australian Curriculum, Assessment and Reporting Authority (ACARA)
(8) Australian Curriculum, Assessment and Reporting Authority (ACARA)
(9) Australian Curriculum, Assessment and Reporting Authority (ACARA)
(10) Australian Curriculum, Assessment and Reporting Authority (ACARA)
(11) Australian Curriculum, Assessment and Reporting Authority (ACARA)
(12) Australian Curriculum, Assessment and Reporting Authority (ACARA)
(13) Australian Curriculum, Assessment and Reporting Authority (ACARA)
(14) Reboot the School, Selemann Khan, Time Magazine
(15) Reboot the School, Selemann Khan, Time Magazine
(16) Assessment & Teaching of 21st Century Skills (ATC21S)
(17) Reboot the School, Selemann Khan, Time Magazine
(18) Transforming a School System to Support Personalised Learning and Higher Order Thinking – Brian J. Caldwell Invited Feature Presentation at the 12th International Conference on Thinking, Melbourne, 8 July 2005
(19) Understanding Virtual Pedagogies for Contemporary Teaching and Learning. An Ideas Lab White Paper. Richard Olsen is the Assistant Director of IdeasLAB
(20) Brisbane Catholic Education – Teaching and Learning
(21) Brisbane Catholic Education – Teaching and Learning
(22) Brisbane Catholic Education – Teaching and Learning
(23) Ewan McIntosh's edu.blogs.com
(24) Immersion from Danielle Carter on Vimeo – Brisbane Catholic Education
(25) Immersion from Danielle Carter on Vimeo – Brisbane Catholic Education
(26) Sir Ken Robinson – Changing Paradigms
(27) Did You Know
(28) Education Leadership
(29) Photos taken from schools visited in Sydney and Melbourne