

**SABBATICAL REPORT:** M. Catherine Gunn. Principal. Sacred Heart Girls' College, Hamilton.

**PURPOSE:** to have focused professional learning time to explore global shifts in education.

**TITLE:** redesigning modern pedagogy and curriculum experiences to prepare students for an ever-changing future.

**BY:** Sacred Heart Girls' College, Hamilton. Principal's Sabbatical study. March 24 – June 17.

**ACKNOWLEDGEMENT:** The Sacred Heart Girls' College Board of Trustees for supporting my Sabbatical application. The Ministry of Education for granting and funding the conference element of the study. Principal colleagues who encouraged me to take time away. My Deputy Principal and other staff for acting in higher positions in my absence. To staff, students and parents for their understanding and good wishes as I travelled overseas to study, rest and reconnect with whanau and friends. Many thanks!

**EXECUTIVE SUMMARY:** "The illiterate of the 21<sup>st</sup> century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn" (Alvin Toffler). Seymour Papert famously said "the only competitive skill is knowing how to learn." To make sure every one of our students develops as a powerful learner, we need school cultures that model and nurture what powerful learning looks like in the modern world. The focus of assessment is shifting to skills and dispositions, those that are required to learn powerfully in a world abundant with knowledge, teachers, and technologies. Indeed, as Ray Dalio, the hedge fund billionaire advises "we're headed for a world where you're either going to be able to write algorithms and speak that language or be replaced by algorithms".

As educators, one of the most common calls to action heard is "schools must change" and "we can't continue to deliver education using the same old model". However, change and innovation in schools is not an easy process. If it were, then everyone would have already changed. Education is our greatest lever for human, social and economic change. At a time when our world faces deprived social mobility, adverse gaps in attainment, growth of mental health issues and a deficiency of the skills needed for 21st century careers, we must question whether the education systems we have created are they fit for purpose:

*'There has been a lot of change in education, but despite the best intentions and efforts of those involved many of these changes have inadvertently narrowed education's purpose, scope and impact' (Reimagining Education Together: Big Change. Innovation Unit.)*

There is no silver bullet, simple solution. It takes the whole village to raise the child! What is essential is that the next generation can lead the way in a rapidly changing world. It is our responsibility, as educational leaders, to ensure that every young person gets what they need to 'strive and thrive in their future world, not ours! If we fail to prepare this generation for their future, we run the risk of disadvantage: at a personal, social and economic level.

**PURPOSE:** Research innovative schools that are redesigning modern pedagogy and curriculum experiences to prepare students for an ever-changing future.

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**RATIONALE AND BACKGROUND INFORMATION:** there are schools who have reimagined and redesigned how they deliver education to their students and they are finding success in many areas such as experiential learning, project-based learning, alternative school structures, innovative building design and student directed learning.

We have been on this journey for the best part of 5 years. What should have been a phased transition to a modern, contemporary, flexible and agile space to support a modern curriculum for driven by principles of effective learning, became a response to a crisis: arson. Thinking we had at least three years to explore our community's beliefs about learning, turned into a much more rapid approach to transformational change. Further compounded by the fact that the traditional Science laboratories were damaged in the fire. This turned the refurbishment plan on its head. Instead of refurbishing communal space (cafeteria), student services and sacred space, we were now looking at learning spaces, with the most complicated and complex specialist learning and teaching area to start with! That required a fast tracked process of re-educating our community, parents, students, Board members and teachers, towards a school experience that would be the antithesis of what they had experienced themselves.

Part of our professional commitment is outlined in our charter. Our Story of Tomorrow describes our future mindset *...we will courageously develop an inclusive, innovative, creative and technology-rich culture of learning and teaching that is appropriate, engaging and formative for all members of our community, supported by contemporary, flexible and agile spaces. We will continue to respond to the changing landscape of education, placing students at the centre of our decisions and promoting a healthy school culture. We will provide students with opportunities to discover their passions so as to become proactive agents of change for a better world. In honour of the RNDM Sisters, and their pioneering spirit, ... we will continue to be a beacon of Social Justice with a Heart for Mission in a global community.*

Moreover, our commitment to 'reflective practice' as our mode of operandum reinforces our acknowledgement of changing landscapes for education: *our teachers are highly qualified professionals who role-model the standards and behaviours we expect from our students and actively contribute to our culture of learning. Drawing on pedagogically sound and ambitious innovations, our teachers cultivate the capacities for learning that our Young Women will need 'to change the world'. They function in networks and teams; they pursue continuous professional learning as teachers; they promote problem-solving and risk-taking; they trust the collaborative process; they are responsive to change and demonstrate a commitment to continual improvement*

Consequently, the implications for classroom practice are far reaching and challenge the deeply held beliefs about learning that have served a different, now becoming obsolete, model of education. No longer can we continue to 'do school' as we have always done it, measure the success of what we have done, how we've always done it or continue to ignore the fact that the teacher's role in the classroom has fundamentally changed over the last 30 years.

As we know, global issues need global solutions!

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**ACTIVITIES UNDERTAKEN:** attending the Global Education Leadership Summit was a way to connect with early adopters and other school leaders looking for innovative models and strategies to implement their own changes. It helps to connect leaders from innovative schools around the world to school leaders who are looking to learn, connect and share with each other. The opportunity for networking meant a variety of schools could share their innovative journeys, including the challenges, mistakes, surprises and rewards, that they encountered and experienced along the way.

As a subscriber to Modern Learners, an online community led by Will Richardson and Bruce Dixon, time on sabbatical allowed me to catch up on podcasts, readings and community engagement. This led to connections with other networks including Big Change, Innovation Unit, KnowledgeWorks.

As an avid reader of professional literature, I took advantage of the time on sabbatical to work through a long list of 'must reads' (many are listed in the reference section of this report). The most impactful is a book that was first published almost 20 years ago, when most of us in education were talking about 21<sup>st</sup> century learning (and a fifth of the way in, we are still talking about preparing young people for the 21<sup>st</sup> century!), 'The Answer to How is Yes', by Peter Block. Its sub-title 'Acting on what Matters', challenges our thinking in an era of constant and rapid change in the context of an industrial culture that values efficiency over effectiveness. We continue to see this in education and reinforced when we ask 'how' as our first question, thus intensifying the pragmatic thinking of the last century. Turns out there's a place for idealism, intimacy, depth and engagement, when courageous leaders seek to transform the status quo!

**FINDINGS:** from a global perspective, the research is telling us that the most powerful drivers of change in schools can be narrowed down to five areas that are a combination of multiple trends, patterns and developments that identify and forecast major societal shifts that will impact education over the next decade:

**Automating choices:** artificial intelligence (AI) and algorithms are increasingly embedded in our lives. They are automating many of our experiences and services as well as our interactions with each other. This is to achieve efficiency and personalisation. All of which raises questions about trust, bias and agency. Indeed, if we fail to talk the language of AI and algorithms we run the risk of being replaced by AI.

**Civic Superpowers:** community organisations are using participatory media, machine learning and data analytics to fill a growing governance gap. Here the intention is to reshape the fabric of society and redefine community engagement. The risk to creating further division and power imbalance is mind-blowing if we fail to develop an inclusive system that enables full participation in conversations and solutions.

**Accelerating Technology:** the combination of rapid advances in technology and neuroscience are transforming our cognitive abilities, by intended and unintended ways. These tools are shaping the way we use digital tools, relate with one another and engage with our environment. The impact of google search, for example, cannot be underestimated in terms of our short-term and long-term memories. When was the last time we had to recall a mobile phone number?

**Toxic Narratives:** the measurement of success and achievement that shape young people's aspirations, agency and behaviour are becoming increasingly detrimental to our wellbeing and

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contributing to an evolving toxicity in systems and institutions. New measurements that honour the wellness at a systemic level must be addressed to avoid reinforcing entrenched inequities and other challenges such as racism, sexism and economic inequality. This is about coming to grips with a broader perspective on learner development and well-being.

**Global migration:** in response to global economic transition and climate change, migration patterns have shifted to the extent that people migrate in search of stable opportunities and liveable communities. The impact on diversity and reshaping towns, cities and countries demands an appreciation of cultural heritage as well as an understanding of modern, creative networks that are inclusive and collaborative. The greatest risk to the most vulnerable resident is further marginalisation and exclusion from participation in decision-making.

**IMPLICATIONS:** as the drivers of change emerge and unfold, they will present opportunities to reimagine new kinds of educational practices, curriculum design, structures and roles that respond to the changing landscape. At its heart are the possibilities for supporting the healthy development of young people that will spark a love of learning for a lifetime and a desire to contribute to the vitality and integrity of the community. As we learn and understand more about these emerging trends, we can cluster them into themes. For example:

**Learning ecosystems:** we will need to situate learning in ways that integrate technology, culture with learner and community identity to enhance and extend opportunities for learning.

**Human-centred learning:** consideration could be given to the repositioning teaching and learning systems, expectations and experiences that put students at the centre of an holistic view of human development.

**Safeguards for efficacy:** strategies that embrace emerging technologies that intend support for the learner, provide multiple opportunities to minimise educational disruption for learners impacted by migration, for example, through flexible, self-organising schools where coaching, mentoring and digital resources feature. Being open to new technology along with safeguarding the data and its interpretation will require sound, ethical leadership and governance.

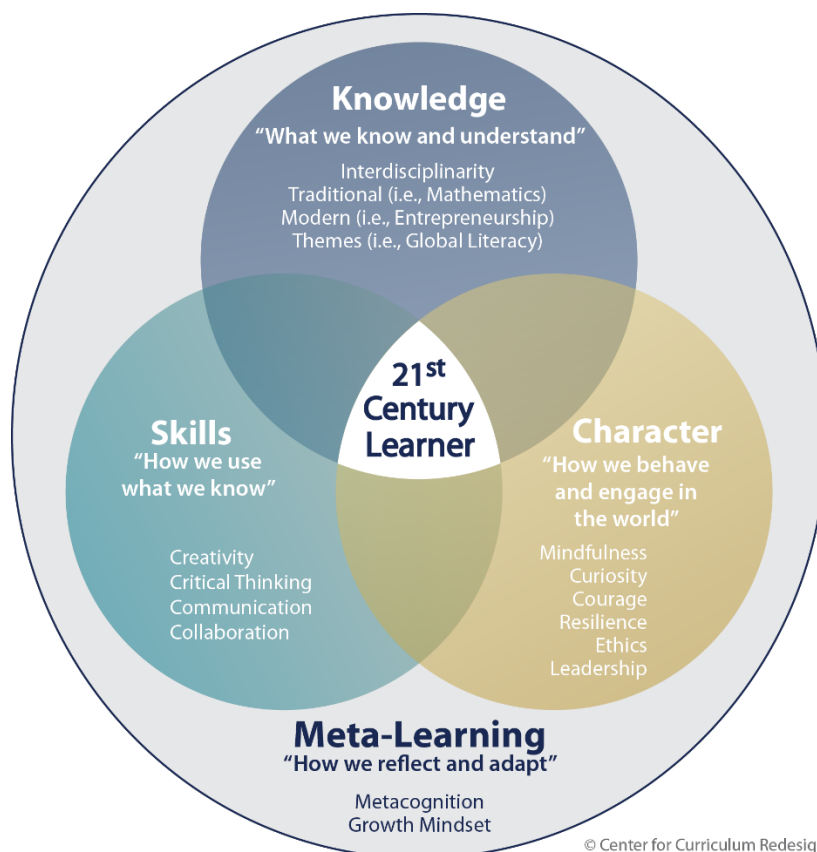
**Amplified participation:** the possibilities for reconfiguring community engagement and increasing the participation of learners through their community voice and influence has the potential for shaping government policy that impact lives.

From the sabbatical enquiry, it became apparent that many schools have been asking the question 'what should students learn for the 21<sup>st</sup> century?' Although, given the rapid changes we don't even realise are taking place, I would argue that we should be looking more towards the 22<sup>nd</sup> century and preparing our institutions for whole new world! This led me to the Centre for Curriculum Redesign, a non-profit global organisation dedicated to improving education by answering the question posed.

According to its website:

CCR brings together [international organizations](#), [jurisdictions](#), [academic institutions](#), [corporations](#), and [non-profit organizations including foundations](#) as it focuses on the design and propagating of new curricula.

As a result of global research, the authors Charles Fadel, Maya Bialik and Bernie Trilling, published their work on the competencies learners would need to strive and thrive in the 21<sup>st</sup> century: **Four-Dimensional Education** (2015):




This is a strategic conversation about education that challenges so many assumptions that we continue to uphold despite what we know and believe about learning today. It is a call to action for all of us interested in shaping the world and preparing young people to live in it well.

Transformative change cannot happen in isolation. People from different backgrounds and organisations must be motivated enough to change their own behaviour in service of a greater goal. Articulating this mission in ways that inspire collective action and purpose is a key feature of any organisation embarking on change from within.

Essentially, the Centre for Curriculum Redesign has raised the question of competency over content. Exponential technologies are creating opportunities for solving the biggest educational challenges as well as disrupting the old models of schooling and learning. Few schools have given this much thought. However, many have and this framework, along with the top ten skills and character traits, developed from global research, is a healthy challenge to the traditional, less relevant structures and approaches to current curricula. Perhaps it's time that skills, competencies and character took a front seat in all schools and content goes in the boot, till we arrive at our destination:

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 CENTER FOR CURRICULUM REDESIGN Making Education More Relevant		CCR Framework Rev 1.0 © 2019 CENTER FOR CURRICULUM REDESIGN - ALL RIGHTS RESERVED - PROPRIETARY INFORMATION			
Dimension	Competency	Subcompetency	Synonyms	Related Constructs	Associated Constructs
Skills: How we use what we know	CREATIVITY	CRE1: Generating and seeking new ideas CRE2: Developing personal tastes and aesthetics CRE3: Being comfortable with risks, uncertainty, and failure CRE4: Connecting, reorganizing, and refining ideas into a cohesive whole CRE5: Realizing ideas while recognizing constraints CRE6: Reflecting on processes and outcomes	imaginativeness   imagination   ingenuity	inspiration inventiveness   originality vision idea generation	resourcefulness   cleverness
	CRITICAL THINKING	CRI1: Identifying, clarifying, and organizing information CRI2: Considering other points of view CRI3: Applying sound reasoning to decision-making CRI4: Assessing validity and quality of information CRI5: Reflecting critically on one's own reasoning and assumptions		problem solving analytical thinking   analysis effective reasoning   logical reasoning critique	decision making   systems thinking   researching
	COMMUNICATION	COM1: Asking questions and actively listening COM2: Clearly and concisely articulating ideas or messages COM3: Using and understanding nonverbal and paralingual communication COM4: Communicating via multiple modes (digitally, orally, etc.) COM5: Empathizing with audiences and adapting messages accordingly		discussion   dialogue	listening speaking presentation explaining understanding conversation
	COLLABORATION	COL1: Taking and sharing responsibility with others COL2: Utilizing each individual's unique skills and perspectives COL3: Navigating and resolving interpersonal conflict COL4: Giving and receiving constructive feedback COL5: Empathizing with and actively supporting team members	cooperation   teamwork	group cohesion	
	MINDFULNESS	MIN1: Attending to one's body, emotions, and reactions in the present moment MIN2: Understanding by describing one's emotions and reactions MIN3: Building effective habits for regulation of inner experience MIN4: Cultivating positivity, open-mindedness, patience and compassion	self-awareness   observation   self- reflection   presence self-management	authenticity patience equanimity   composure   acceptance   tranquility   sensibility consciousness   meditation self-actualization interconnectedness   interdependence   oneness spirituality   existentiality balance wisdom	compassion   empathy   caring sharing gratitude   beauty growth, vision, insight, happiness, social awareness   cross-cultural awareness listening
Character: How we behave and engage in the world, aka agency, attitudes, behaviors, dispositions, mindset personality, temperament, values, social and emotional skills, non-cognitive skills, and soft skills	CURIOSITY	CUR1: Seeking to understand deeply CUR2: Seeking out novelty and trying new things CUR3: Seeking different perspectives to broaden understanding CUR4: Actively pursuing one's own interests and passions		open-mindedness   exploration   openness to experience   passion   self-direction   motivation   initiative   drive enthusiasm   wonder   appreciation	spontaneity innovation
	COURAGE	COU1: Pursuing ambitious goals despite social, financial, physical, or emotional risk to self COU2: Standing up for one's values COU3: Engaging with others in a vulnerable way	bravery	determination fortitude confidence risk taking	perseverance   persistence   toughness   RESILIENCE zest   inspiration   energy   vigor   zeal, cheerfulness, humor   optimism
	RESILIENCE	RES1: Adapting flexibly RES2: Building strong social networks RES3: Managing stress and expressing emotions appropriately RES4: Orienting to a meaning or purpose RES5: Persevering through challenges but seeking help when needed	perseverance   grit   persistence	stability self-discipline   effort   diligence   commitment   self-control tenacity resourcefulness self-esteem confidence	adaptability   dealing with ambiguity   flexibility feedback spunk GROWTH MINDSET
	ETHICS	ETH1: Identifying and describing ethical concepts ETH2: Making ethical decisions and taking ethical actions ETH3: Understanding the ethical perspectives of others ETH4: Understanding and assessing values, (civil) rights, and responsibilities	integrity   fairness   decency   virtue	integrity   authenticity   genuineness benevolence   humaneness   respect justice   equity   fairness   kindness   altruism   inclusiveness tolerance   acceptance honesty   truthfulness	trustworthiness   loyalty love   helpfulness   generosity   charity   devotion   forgiveness belonging   civic-mindedness   citizenship   equality,   consideration
	LEADERSHIP	LEA1: Determining challenges and setting goals LEA2: Managing power ethically LEA3: Thinking strategically to best utilize resources (people and material) LEA4: Evaluating team outcomes and adapting accordingly LEA5: Respectfully collaborating with others LEA6: Contributing to the broader group or community LEA7: Sharing one's vision and inspiring others		responsibility   accountability   dependability   reliability decision making   goal-orientation   results orientation   execution   efficiency conflict resolution   relationship skills   social intelligence   negotiation   respect for diversity	conscientiousness   consistency   commitment   focus   organization   precision selflessness humbleness   modesty community delegation   abnegation mentorship heroism   charisma   inspiration followership   leading by example engagement socialization decorum   tact self-reflection
	METACOGNITION	MET1: Reflecting on processes, achievements, learning, and/or identity MET2: Determining goals, plans to achieve those goals, and monitoring one's progress MET3: Monitoring comprehension and managing information accordingly MET4: Evaluating one's actions and their consequences MET5: Considering alternatives and different perspectives MET6: Practicing awareness and regulation of internal state MET7: Thinking and adapting flexibly	thinking about thinking	(self-)reflection   (self-) awareness	
	GROWTH MINDSET	GRO1: Believing in one's agency and having high self-efficacy GRO2: Learning from mistakes and welcoming feedback as a chance to grow GRO3: Persevering for deeper expertise and understanding GRO4: Understanding one's current strengths and weaknesses GRO5: Finding joy in learning and becoming a lifelong learner	self efficacy	self concept productive failure	self esteem   confidence

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'The foundational reason for why we find it so difficult to rebuild school curricula around the needs of the modern world is that we lack an organizing framework that can help prioritise educational competencies, and systematically structure the conversation around what individuals should learn at various stages of their development. Four-dimensional education provides a clear and actionable first-of-its-kind organizing framework of competencies needed for this century. Its main innovation lies in not presenting yet another one-size-fits-all list of what individuals should learn, but in crisply defining the spaces in which educators, curriculum planners, policymakers and learners can establish what should be learned, in their context and for their future.'

Andreas Schleicher, Director for Education and Skills, OECD.

**CONCLUSIONS:** despite the best intentions and efforts of those involved in many of the system changes within education, numerous changes have inadvertently narrowed education's purpose, scope and impact: one example from a New Zealand perspective could be Kāhui Ako.

That said, however, a recent case study, published April 2019, includes the New Zealand Ministry of Education as an example of transformative system-wide change. The national conversation to co-create a world leading education strategy has not gone unnoticed and features in the research published as 'Reimagining Education Together: so that all young people can thrive in a world of constant change'. The current Secretary for Education is quoted as saying:

*'essentially, everything in the education landscape is up for redesign. I don't want to exaggerate it, but the policy process that we've known and loved for the past 30 to 40 years has been inverted. What the government is saying is it wants to hear the voices of people, those who are hardest to consult with, those whose voices are seldom heard'.*

The co-ownership model of educational transformation illustrated by the NZ Ministry of Education's ambitious work programme to define a long-term vision for education that has at its core meeting the needs of all learners, no matter who they are, where they come from, or who they come from!

For any school or system that is serious about considering anything more than cosmetic changes (i.e. giving everyone an iPad and then using it for digital worksheets), power is the fundamental lever as to whether change happens and, almost more importantly, whether or not it sticks. And the key, not ironically, is our willingness to hold our own self-interests and our own power at bay in the interest of some greater mission, some greater good for students. As Sarason points out, it's the hinge upon which everything change-related rests:

*'The problem of change is the problem of power, and the problem of power is how to wield it in ways that allow others to identify with, to gain a sense of ownership of, the process and goals of change. That is no easy task; it is a frustrating, patience-demanding, time-consuming process. Change cannot be carried out by the calendar, a brute fact that those with power often cannot confront'.*

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