**Lessons from Covid19**

**Enable your students to learn all the skills of self-managed**

**remote learning - remotely**

**Lance King**

**April 2020.**

The global pandemic of 2020 demonstrated two things very clearly to the whole education community world-wide:

1. that most teachers were poorly prepared to facilitate students’ remote learning of their subject matter
2. and that most students were poorly prepared to fully manage their own learning.

The reason being of course that remote learning hadn’t been a necessity of school life before Covid 19, more of a luxury or an interesting alternative but now it has moved to centre stage as the no 1. post-Covid19, most vital educational strategy for all schools and all students world-wide.

Luckily teachers are very versatile and adaptable people and it did not take them too long from when schools closed to get up to speed and start working on turning their classroom lessons into fully independent remote learning experiences for students. In doing this they discovered:

1. that they were largely unfamiliar with the full variety of websites that teach their subject matter, and also
2. that designing engaging, good quality, remotely accessible, independent learning lessons for students to achieve the same educational objectives that would have happened in class in anything like the same time frame is not an easy thing to do.

And then once they had got familiar with the on-line material and designed some good lessons using it they discovered the final hurdle:

1. that many students did not really know how to manage their own learning - remotely.

Without the formal environment of a class to support them many students felt isolated and disconnected from their schooling and found it very difficult to generate the motivation and drive necessary to put in the hours of learning at home that they normally would at school. As one parent told me:

“Even in lockdown they still seem to have almost 24/7 connection with their friends on their devices, but the idea of using that connection to work together on schoolwork just doesn’t seem to occur to them. They don’t seem to have been taught how to form digital teams, how to collaborate and work together remotely, independent of teachers.”

The real lessons we can all learn from Covid 19 are that:

1. teachers need to be very familiar with every website that teaches their subject matter – both the free and the paid sites and schools need to invest in subscriptions for teachers in all the best sites
2. teachers need comprehensive training in how to design engaging, independent remote-learning lessons for their students that utilise the best on-line resources available
3. students need to be taught all the thinking and learning (ATL) skills they need for effective self-managed learning
4. at school, students need training in and regular practice in the management of their own learning
5. becoming an effective, successful self-managed learner needs to be made into a high status achievement at school, something all children will aspire to.

**Changes Post-Covid19**

Now that the pandemic is behind us (in most parts of the world) and children are back at school, the biggest change in their schooling needs to be a major reorientation towards the self-management of learning as a prioritised goal. We need to shift the focus of school-based learning from teacher as ‘all knowing expert’ to teacher as ‘designer of engaging, remote-learning opportunities’ that can be completed either in a classroom setting or remotely.

This is an approach that will not only increase subject knowledge and understanding by maximising the utility of technology to increase the effectiveness of learning it will also enable students to increase their proficiency in all the thinking and learning skills they will need for every career they might choose in the future.

How long do you think it will be before we have full Virtual and Augmented Reality operating in the school-based educational environment? How long will it be before any young people, wherever they are, will be able to use haptic feedback gloves and 3D goggles, not for a game, but in order to be fully immersed in an educational experience? Imagine learning Chemistry by being able to manipulate atoms of different elements with your own hands and watch as you pull molecules apart and reform them in chemical reactions, or learn a language by full VR immersion in the daily life and activities of a person in a different culture or learn History by peering over the shoulder of Howard Carter when he opened Tutankhamun’s tomb, or Armstrong when he walked on the moon. Imagine being able to have a real time conversation with Lao Tsu or Socrates, Archimedes or Confucius. Can you imagine what that would be like?

It might be powerful enough to generate understanding and learning instantly, much quicker and at a deeper level than any classroom experience could possibly do.

At that point what do we need teachers, classrooms and schools for?

This is the redundancy point that every forward-looking educational institution and school system, is planning right now how to deal with.

If children could learn everything they needed to learn from full sensory online experiences with fully intelligent digital personalities as learning guides and mentors then at that point would we still need schools and teachers?

Of course even fully interactive VR would become tedious if it was the only learning method used, six hours per day, five days per week. Children need to interact, they need to move, they need to do a thousand other things each day in addition to classroom learning and so schools and teachers will definitely have a role in the future but I think the nature of the teaching role will change – as they say *“from the sage on the stage to the guide on the side”.* From teaching to facilitating learning.

To prepare for this future I think right now not only how we teach but what we teach needs to change to enable children to cope well with their own increasingly digitised and individualised education.

Speaking at the World Economic Forum in Davos, Switzerland, Jan 2018 - Mr Jack Ma of Alibaba said:

“We cannot teach our kids to compete with machines.  Teachers must stop teaching knowledge. We have to teach something unique, so a machine can never catch up with us. Education is a big challenge now.  If we don’t change the way we teach, we will be in big trouble in 30 years from now.  Because the way we teach, the things we teach our kids, are the things from the past 200 years – its knowledge based. We need to be teaching our children values, believing, independent thinking, teamwork, care for others...these are the soft parts. The knowledge will not teach you that” (Ma, 2019)

Teachers, and all education systems in the East and the West need to start focusing on teaching children how to do all the things that computers can’t do.

Andreas Schleicher of the OECD in his book *World Class* agrees:

“It is likely that future work will pair computer intelligence with humans’ social and emotional skills, attitudes and values. It will then be our capacity for innovation, our awareness and our sense of responsibility that will enable us to harness the power of artificial intelligence to shape the world for the better. That is what will enable humans to create new value, which involves processes of creating, making, bringing into being and formulating, and can generate outcomes that are innovative, fresh and original, contributing something of intrinsic positive worth. It suggests entrepreneurialism in the broadest sense – of being ready to try, without being afraid of failing (Schleicher A. , 2018).

To do this, teachers need to start by abandoning ‘transmission’ teaching and adopting principles of skills-based, experiential, inquiry-based learning. This teaching method involves students utilising web-capable devices, working in small groups, accessing subject-based websites, and practising effective learning and thinking skills (called ATL Skills in all IB schools and 21st C Skills or 21st C Competencies in other schools). To have an advantage in their future lives they need to be practicing now, at school, cognitive skills like searching, selecting, verifying, validating and corroborating information, social skills of collaboration, communication, team work and affective skills like perseverance and persistence. In this scenario, teaching becomes about making explicit all the processes of learning and guiding the students on a pathway of inquiry to achieve specific measurable content and process-based outcomes. Helping students learn how to ask the right questions but never providing the answers.

What this new type of teaching is **not** about is teachers using the internet as just one more textbook.

**Elearning**

As at April 2022, there were five billion internet users worldwide (63 percent of the global population) and of this total, 4.65 billion were social media users.

The rise of the digital age has made the most marketable skills for almost all forms of employment the skills of the self-managed learner. How to find the right information, verify it, validate it, interrogate it, process it, extract what you need, learn from it, use it and move on. These are the skills of the fully self-managed learner and in order to become competent in these skills children need to be put in the position throughout their schooling of being able to practice the management of their own learning.

The most motivating learning has always been self-managed learning (self-directed, self-regulated, autonomous, independent learning) and yet up to now the infrastructure of education has not allowed for much learning by exploration and discovery except at the elementary level. The proliferation of internet-based school subject websites and the ubiquity of digital devices has changed all that.

And now Covid19 has made self-managed learning a necessity.

“Helping students develop effective learning strategies and metacognitive abilities, such as self-awareness, self-regulation and self-adaptation, will become increasingly important, and should be a more explicit goal in curricula and instructional practice.” (Schleicher A. , 2018)

Teachers no longer need to be the ‘font of all knowledge’ but they do need to know where to send their students to find everything they need. This means that every teacher needs to be familiar with every website that deals with their particular area of subject expertise and to know those websites well enough to design lessons around the content found there. They need comprehensive training in designing engaging remote lessons which require the participation by students in digital groupwork. These days it is very simple for students to have a chat window open on their phone to a group of 3-4 other students so they can work together in a collaborative group to complete teacher specified tasks. Individual work alone in front of a computer screen is to be avoided as much as possible – it is not necessary and can even serve to increase isolation and decrease collaboration, communication and recall – see Sugata Mitra (Mitra, 2010).

Learning then becomes intrinsically motivating and success is achieved through the exercise, on available information, of a controlled set of skills and processes. These skills are described in the national curricula of many countries as 21st C skills or competencies. These competencies are developed from the practice of a combination of metacognitive, cognitive and affective skills which positively influence a student’s tendency to approach, engage with, expend effort on, and persist in tasks of learning in an ongoing, self-regulated manner.

“Students will need to apply their knowledge in unknown and evolving circumstances. For this, they will need a broad range of skills, including cognitive and meta-cognitive skills (e.g. critical thinking, creative thinking, learning to learn and self-regulation); social and emotional skills (e.g. empathy, self-efficacy and collaboration); and practical and physical skills (e.g. using new information and communication technology devices). The use of this broader range of knowledge and skills will be mediated by attitudes and values (e.g. motivation, trust, respect for diversity and virtue).

To prepare for 2030, people should be able to think creatively, develop new products and services, new jobs, new processes and methods, new ways of thinking and living, new enterprises, new sectors, new business models and new social models. Increasingly, innovation springs not from individuals thinking and working alone, but through cooperation and collaboration with others to draw on existing knowledge to create new knowledge. The constructs that underpin the competency include adaptability, creativity, curiosity and open-mindedness. (OECD, 2018)

**Essential Thinking and Learning Skills**

Since 2000 and the first PISA survey the education planners of most countries have been trying to answer the question – “What are the most important skills that our children need to be taught *now* so that they are made ready and capable and able to be successful in their future working life.”

These are some of the most recent papers produced on this theme:

* **OECD – Education 2030 The Future of Education and Skills** *– the skills to cope with environmental, economic and social challenges*
* **Finland – Foresight 2030** – *the skills of how to learn, problem solving skills, internationality*
* **Japan – National Curriculum Review** - *skills of how we learn, how we use what we know*
* **Korea – Future School 2030** – *creativity, problem solving, communication skills*
* **The Netherlands – Scientific Council for Government Policy** - *the skills needed to transform the Dutch economy from a ‘knowledge economy’ into a ‘learning economy’*
* **Austria - Institute for Economic Research** – *general skills, academic skills, job-specific skills & the skills of innovation*
* **Canada – Federal Government Policy Horizons** – *synthesizing and employing knowledge efficiently,* *adaptive thinking, media & digital skills*

Most countries in both the East and the West are now realising the importance of 21st C skills, competencies or capabilities and have explicitly included them in their national curricula:

In **Australia,** theGeneral Capabilities in the national curriculum include ICT Capability, Critical and Creative Thinking, Personal and Social Capability, Intercultural Understanding and Ethical Understanding

**Finland** has their Transversal Competencies which include Motivation, Knowledge and Skills needed in Life and Joy of Learning.

**Ireland’s** key skills for learning include Knowing Myself; Being Curious; Thinking Creatively and Critically; Gathering, Recording, Organising and Evaluating Information and Data; Imagining; Developing good relationships; Co-operating; Listening and Problem Solving.

In the new **Japanese** curriculum they have two sections, one focuses on What to Learn, the other on How to Learn which is described as *the competencies needed for the new era, including acquisition of the knowledge and skills necessary to live and work.*

**New Zealand’s** national curriculum includes five Key Competencies – Thinking, Using Language, symbols and Text, Managing Self, Relating to Others, Participating and Contributing.

In **Canada** the Shifting Minds curriculum is being promoted for all Canadian schools, it includes Creativity and Innovation, Critical Thinking, Collaboration, Communication, Computer and Digital Technologies.

In the **USA**, within the Common Core State Standards are found a selection of what are called Thinking Skills – Critical, Creative, Complex, Comprehensive, Collaborative, Communicative and Cognitive transfer.

**Argentina** has a dual focus in their new curriculum on Focus on Learning and Focus on Organising Learning and a set of Capabilities including Communication, Problem Solving, Critical Judgement, Responsibility and Commitment, Learning to Learn and Working Together.

In **China**, the new curriculum has an emphasis on the Self-Management of Learning and includes Learning to Learn, Healthy Life and Growth Planning.

The new **Hong Kong** curriculum has as its twin goals fostering whole-person development and nurturing life-long and self-directed learning capabilities. The Generic Skills they have chosen to focus on include Communication, Mathematical, IT, Critical Thinking, Creativity, Problem Solving, Self-Management, Self-Learning and Collaboration.

**Vietnam’s** new national curriculum includes the Competencies of Self-Management, Self-Study, Communication, Co-operation, Problem Solving and Creativity.

**Singapore** focuses on developing Self-Directed Learners through exercising Information and Communication Skills plus Critical and Inventive Thinking on a core of values like Self-Management and Responsible Decision Making.

“Singapore was the first country I came across that places values explicitly at the centre of its curriculum framework. It emphasises respect, responsibility, resilience, integrity, care and harmony in school. These values are meant to shape students’ character qualities, such as self- and social awareness, relationship management, self-management and responsible decision making. In fact, this framework refers to character qualities as “values in action”. As a whole, the Singaporean curriculum framework is designed to nurture a confident person, a self-directed learner, a concerned citizen and an active contributor. (Schleicher A. , 2018).

In all IB schools these skills are all found in the ATL frameworks but in the broadest sense all the components or categories of skills and competencies in all these models could be called ‘learning skills’ because they are all the components of what it takes to be a brilliant learner in a modern digital age. We are right now the first generation of a new age. An age where all the information in the world will be available to most people and we will see the emphasis of education move from content to process, from knowing to learning.

Corvid19 has done all of us a huge favour in showing us the deficiencies in our present ‘live’ educational model. In the past a dependence on ‘live’ teaching and the underutilisation of digital resources for learning has led us into a teaching model which no longer works – for the Covid19 age or post-Covid for the worlds of higher learning, commerce and enterprise. To prepare our children to take full advantage of this post-Covid19 age, right now we need to be teaching them all the thinking and learning skills they need to become effective, self-managed, remote learners and providing them with many opportunities to practice the management of their own learning.

**Bibliography**

Ma, J. (2019, September 10). *1.* Retrieved from World Economic Forum: https://www.weforum.org/agenda/2018/01/top-quotes-from-davos-on-the-future-of-education/

Mitra, S. (2010). *The Child-Driven Education*. Retrieved from TED: http://www.ted.com/talks/lang/en/sugata\_mitra\_the\_child\_driven\_education.html

OECD. (2018). *The Future of Education and Skills - Education 2030.* Retrieved from http://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf?utm\_source=Adestra&utm\_medium=email&utm\_content=Future%20of%20Education%20and%20Skills%3A%20Education%202030&utm\_campaign=OECD%20Education%20%26%20Skills%20Newsletter%3A%20Febr

Schleicher, A. (2018). *World Class.* Retrieved from https://www.oecd-ilibrary.org/docserver/9789264300002-en.pdf?expires=1547521884&id=id&accname=guest&checksum=04356135C046A4EF8663D5083ED92925