**Professor Do Coyle &
The Shared Learning Spaces Team**

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Digital Digging,
4-D Planning &
Shared Learning Spaces

June 23rd 2020

Five Key Messages
to trigger one good idea or two helpful suggestions

Drawing on constant work with learners and teachers,

Let's all **stop, seize the opportunities** which a global pandemic has brought and set about working in *adjusted* ways with learners, families and communities to **grow shared learning spaces** in hybrid forms.

Digital Pedagogy

Digital Pedagogy is precisely not about using digital technologies for teaching and, rather, about approaching those tools from a critical pedagogical perspective. So, it is as much about using digital tools thoughtfully as it is about deciding when not to use digital tools, and about paying attention to the impact of digital tools on learning.

Fullan & Langworthy, 2014 – my favourite read – what's yours?

A Rich Seam

How New Pedagogies Find Deep Learning

Authors
Michael Fullan
Maria Langworthy

Technology used **without** powerful teaching strategies (and deep learning tasks) does not get us very far.

Digital tools and resources have the potential to enable, expand and accelerate learning in ways previously unimaginable.-BUT-

most of the billions invested by schools and education systems in technology have not achieved that potential.

Without **changes to the fundamental pedagogical models** by which teachers teach and learners learn, technology investments have too often simply layered slightly more entertaining content delivery or basic skill practice on top of conventional teaching strategies that focus on the reproduction of existing content knowledge.

http://michaelfullan.ca/wp-content/uploads/2014/01/3897.Rich_Seam_web.pdf

Dangers? Post –Truth Era? Truth, Lies and Surreal Truths: A Plea for Critical Digital Literacies

- Criticality?

- Education in the (Dis)Information Age

- Asking good questions? Checking sources?

- How can we balance what is on offer and now what is no longer a choice?

- Creativity?

- Fewer boundaries?

- Learning hasn't changed or has it?

- How we do 'it' has changed?
  https://hybridpedagogy.org/about/

Food for digital thinking: distinguish, starting points, keep it simple & find your favourites

- Distinguish: digital environments (virtual, on-line, hybrid learning spaces) and digital tools to support learning.

- Don't start with the technology. Start with pedagogy and let the students help you see how they'll fit technology into effective teaching and learning. (Max Drummy, Professional Learning Leader, Department of Education, Tasmania, Australia)

- We were so excited about some of the great apps and great technology, and then we started to realise that it was the simplest forms of technology that are the most profound. (Liz Anderson, Grade 6 Teacher, Park Manor, Ontario, Canada)

- The hyperlink for me is still the best possible tool – student use is fundamental to feedback and my understanding what they understand (John Fullman, Frederick Spencer Academy, UK)

Spaces – impact

Physical social mental (cognitive)

Seizing the problem......

Why do we generally ignore 'space' and spatial literacies? Why post-COVID are these fundamental to learning?

How we design our learning spaces and what we do in them requires creative, agile, pedagogic interpretation about how **physical spaces** connect with **cognitive** and **social spaces** leading to expansive, deeper shared learning within and beyond the classroom and school.

Message One
Defining your opportunities

"**Whether we realize it or not, the designed world impacts us as people — how we think, feel, and act.** This relationship between humans and the built environment is especially important in schools. It's the space where students and teachers spend a third of their lives, yet where they often have little control".

Taking control….
Sharing control…

Schooling disrupted, schooling rethought

How the Covid-19 pandemic is changing education

Fernando M. Reimers, Global Education Innovation Initiative, Harvard Graduate School of Education

Andreas Schleicher, Directorate of Education and Skills, Organisation for Economic Co-operation and Development
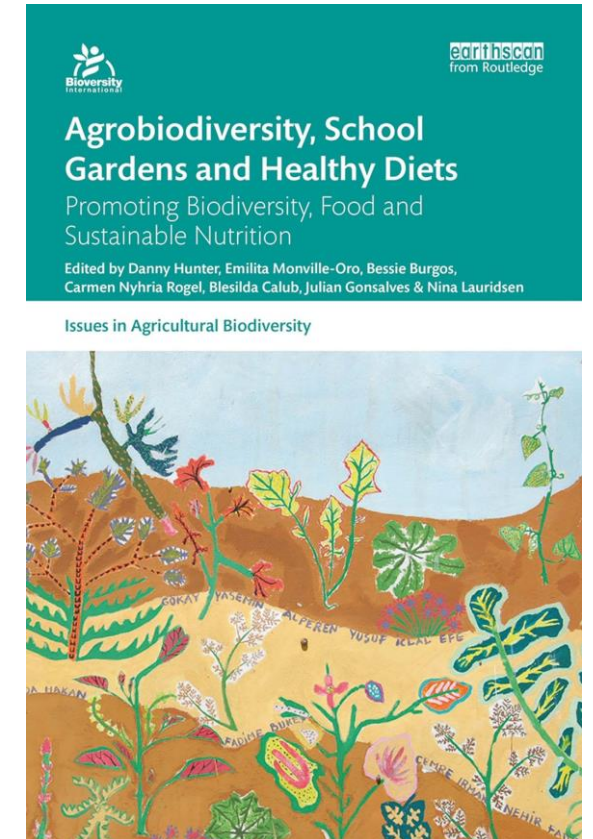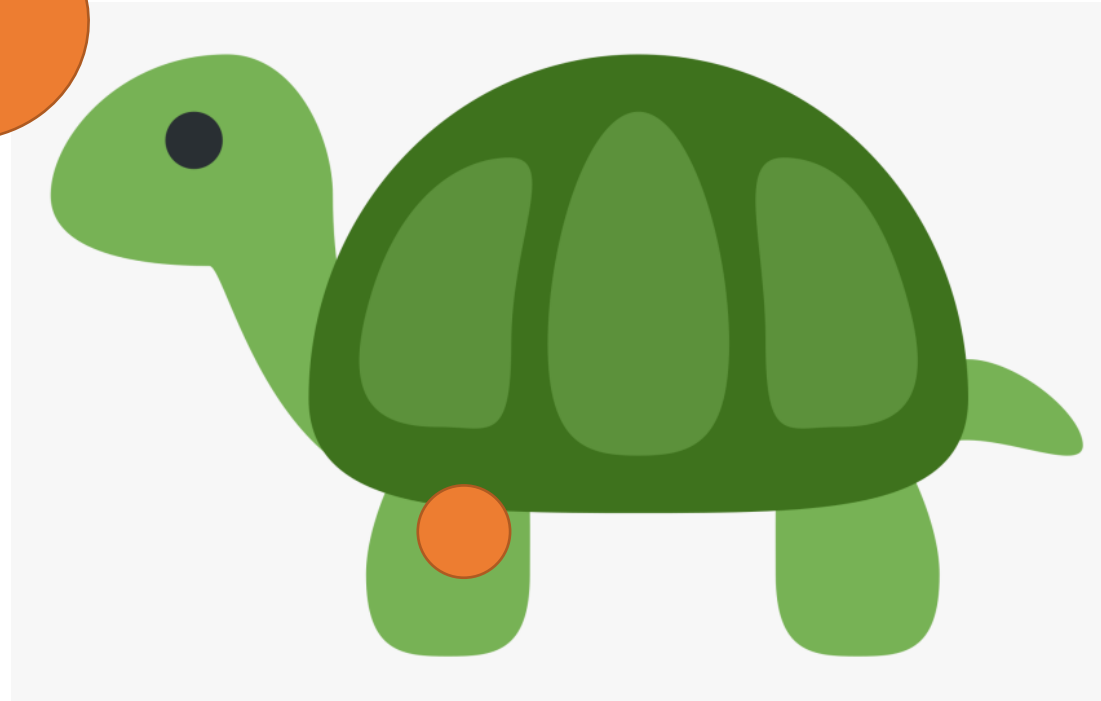
With assistance from Grace A. Ansah

OECD

BETTER POLICIES FOR BETTER LIVES

Catch Up

Digital Directives – hybrid, on-line and f2f, blended, flipped, lesson study – now!!

https://hybridpedagogy.org/

OECD (2019), *Trends Shaping Education 2019*, OECD Publishing, Paris, https://doi.org/10.1787/trends_edu-2019-en.
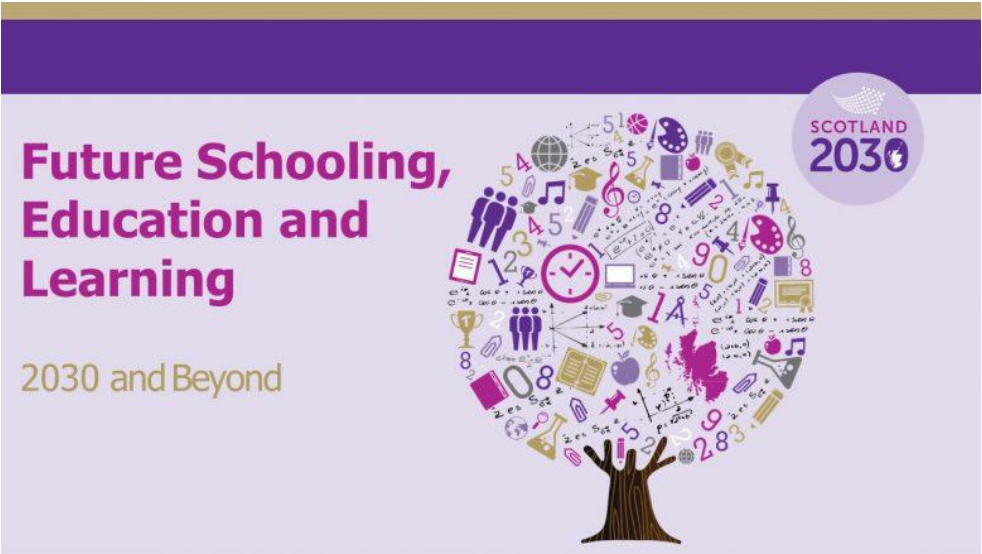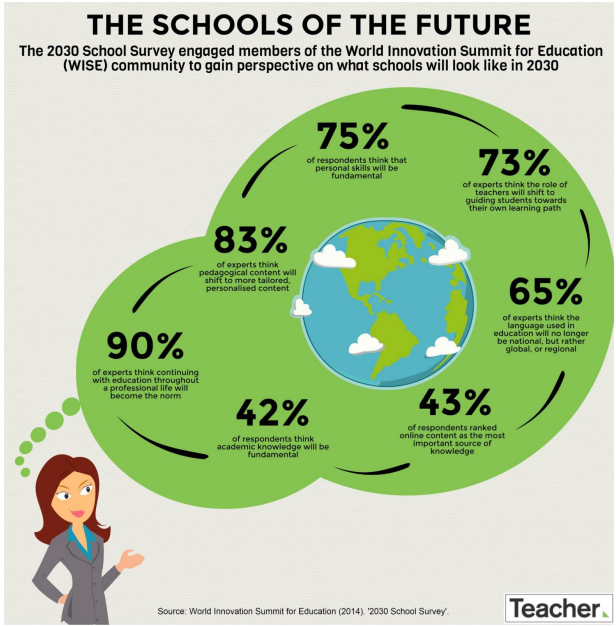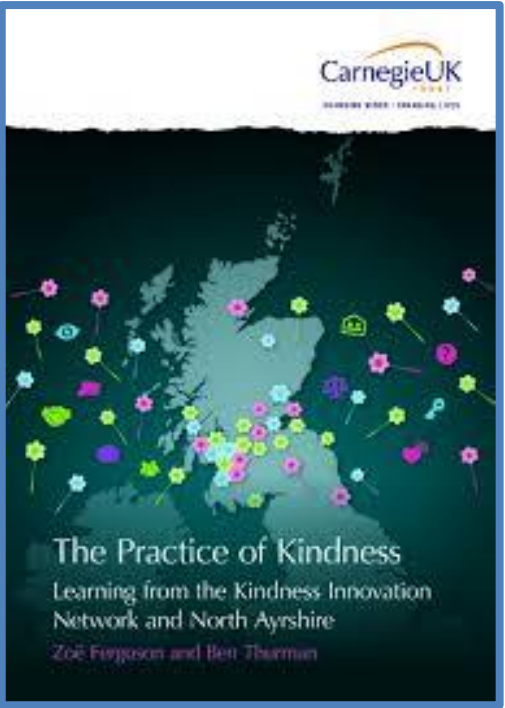
Digital Digging

Message Two

- Overwhelming sets of resources all of which promise digital enhancement and support for schooling
- Ubiquitous digital talk - urgency, priorities, back to school, catch-up,
- Missed education, widening gap, boundaries blurred
- Lessons learned from elsewhere – lots of intelligence/experiences to share 0 are we listening?

Learning didn't stop

TACKLING CORONAVIRUS (COVID-19)
CONTRIBUTING TO A GLOBAL EFFORT

Scotland's Learning Estate Strategy

Connecting
People, Places and Learning

COSLA — Smarter Scotland Scottish Government

CarnegieUK Trust

The Practice of Kindness
Learning from the Kindness Innovation Network and North Ayrshire

Zoë Ferguson and Ben Thurman

THE SCHOOLS OF THE FUTURE
The 2030 School Survey engaged members of the World Innovation Summit for Education (WISE) community to gain perspective on what schools will look like in 2030

75% of respondents think that personal skills will be fundamental

73% of experts think the role of teachers will shift to guiding students towards their own learning path

83% of experts think pedagogical content will shift to more tailored, personalised content

65% of experts think the language used in education will no longer be national, but rather global, or regional

90% of experts think continuing with education throughout a professional life will become the norm

42% of respondents think academic knowledge will be fundamental

43% of respondents ranked online content as the most important source of knowledge

Source: World Innovation Summit for Education (2014). '2030 School Survey'.

Teacher

Improving Schools in Scotland: An OECD Perspective

OECD

Future Schooling, Education and Learning
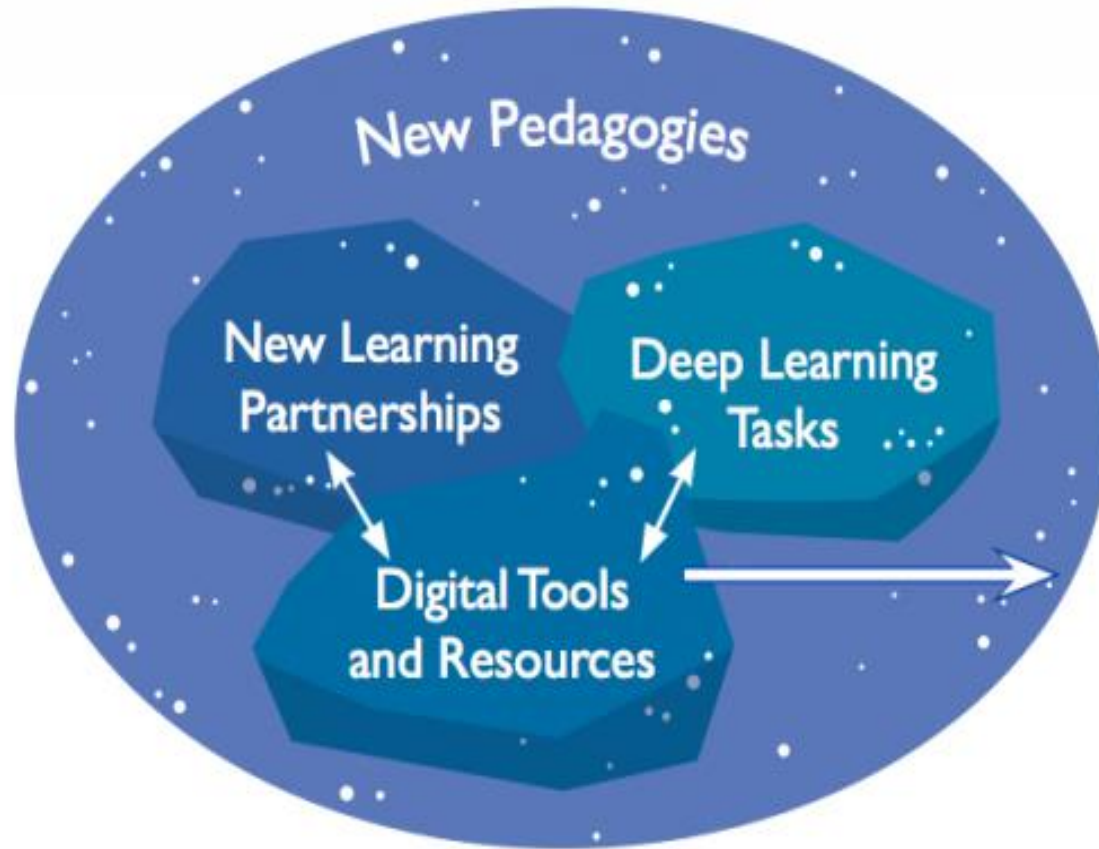2030 and Beyond

SCOTLAND 2030

Turning the negatives into positives

A study by Salford University found that *well designed classroom environments* can boost academic performance and that the layout and decoration of a classroom can have a marked impact on *children's attainment* in the core subjects in particular. The study showed that *naturalness* and the *amount of stimulation* were key to creating the best learning environment.

(Barett, L,., & Zhang, Y. (2016) Teachers' Views of their Primary school classrooms h t t p://usir.salfor d.ac.uk/id/e p rint/36 1 2 9)

Figure 8: Digital Tools and Resources

New Pedagogies

New Learning Partnerships

Deep Learning Tasks

Digital Tools and Resources

Enabling new content discovery, local and global collaboration, and the creation and use of new knowledge in the world.

Accelerating teachers ability to put students in control of the learning process.

Fullan and Langworthy, 2014 – Read Chapter 4

Learnscapes

Seascapes

Landscapes

Message Three

We create them anytime – anywhere… 2020

My space, Our spaces, Shared spaces

So a crucial question yet rarely asked until now... !!! How does space (cognitive, social as well as physical) impact on learning? And what can I do about it?

Considering the amount of time spent in school (anywhere from 11 – 20 years) and the level of education we aspire to obtain, it is surprising that we were/are happy to do it in poorly designed places. Post-COVID ….

We can now co-create new kinds of dens and safe hideouts with our pupils

Where are my safe spaces?

Based on the findings from my research,
the following concepts for collaborative spaces
Inside and outside the classroom were developed:

      Breakout Rooms
      Breakout Hollows
      Breakout Niches
      Breakout Nodes

(Lippman 2014; 2013a; PEHKA, 2012).

Co-designing your learnscape with your learners

- https://www.edtechteam.com/inspiringspaces/
- https://www.churchie.com.au/churchie/media/Documents/Churchie-s-New-Generation-Learning-Spaces-Booklet.pdf
- https://scotland.britishcouncil.org/connecting-classrooms-scotland
- https://www.britishcouncil.org/etwinning/what/case-study

Scotland's Learning Landscapes Tool*

Indoor + Digital + Outdoor = Shared Learning Spaces

* Lesley McMillan (Architecture and Design Scotland and the Shared Learning Team, Moray House, University of Edinburgh

Scotland's Learning Landscapes Tool

Participatory Toolkit – Paper/Digital/3D

Typologies

Kindness at the heart of shared learning design

Campfires in Cyberspace

Key Zones for Activity Based Spaces

Talk

Collaborate

Reflect

Gather

Explore

Focus

Digital

Outdoor

Indoor

Message Four
Developing spatial literacies

Exploring and experimenting

[Co-designing] Shared Learning Spaces

Message 4: Developing spatial literacies

"without explicit attention [to spatial thinking], we cannot meet our responsibility for equipping the next generation of students for life and work in the 21st century."

A teacher's spatial awareness is a pre-requisite to developing

spatial literacies in young people and designing shared learning spaces, reconceptualising space and bringing the inside out and the outside into our classrooms.

Shared Learning Spaces

https://www.youtube.com/watch?v=rgeLp2TX36c

https://www.africam.com/wildlife/live-african-wildlife-safari-channels/

https://www.youtube.com/watch?v=97KryZmuv5c

Making walls disappear, bringing together different sites for learning and uniting 'big' alternatives with 'mini' mobile hand-helds and non-digital learning tools

CO-CREATING SHARED LEARNING SPACES WITH NEWBATTLE HIGH SCHOOL TEACHERS & PUPILS

The Pupil Research Team at Newbattle decided SLS could offer:

- A space to share learning with people locally, nationally and internationally
- The possibility for them to learn a wider range of subjects that are currently not easily accessible
- Opportunities to learn with others via learning networks including universities, other schools and glocal communities around the world to co-design learning spaces.
- Learning about and with other cultures, languages, peoples and sharing their findings through the SLS.

Note: The pupils express extreme curiosity about how others learn in different parts of the world and what young people do outside school.

SEIC SOUTH EAST IMPROVEMENT COLLABORATIVE
Working together, empowering all, improving outcomes

THE UNIVERSITY of EDINBURGH

Newbattle High School
A Digital Centre of Excellence

"Career Ready, College Ready, University Ready, Digitally Ready!"

When the Cloud meets SLS

Pupil researchers (Science) delivered mini-lessons demonstrating how they wanted to be taught for our PGDE student teachers. They challenged PGDE Science students to respond by delivering mini-lessons back followed by a discussion.

Read this

Results – learner gain in confidence, self-esteem and feelings of being successful members of their school community – inside and outside, being linked with the university (for 'smart' people) with clear ownership of the direction of their learning and a keener sense of space developing spatial awareness

The Newbattle Learner Research Team

This SLS link developed through City Deal

# What the pupil researchers said – we can share learning for…..

Primary

languages

practical science

transitions - to speak to new people

fast-track (P7 access to high school science, maths & English)

speaking to people we know for help during fast-track

talking to someone if we need help with learning

seeing what the high school learning environment is like

Secondary

to look around the world

conversations across the world

learning new subjects

being included in new courses

getting experiences for what high school will be like

building relationships with other people

presenting to people in other countries

study groups – study different people's culture & history from around the world & tell someone from that country about it through video call

seeing what other people in different places, even different countries, learn & do in their spare time compared to us

speaking to people from other countries to develop our learning abilities

We can share with University of Edinburgh...
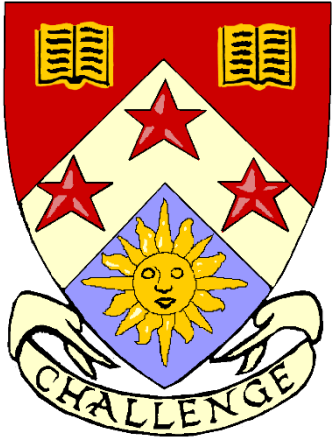
- Have university talks & tours
- Teach university students
- Be involved in further studies
- Training tomorrow's teachers
- University could collaborate with us people at Newbattle to hold joint learning classes
- We could revise with people from the university

Message Five 4-D Learning Design
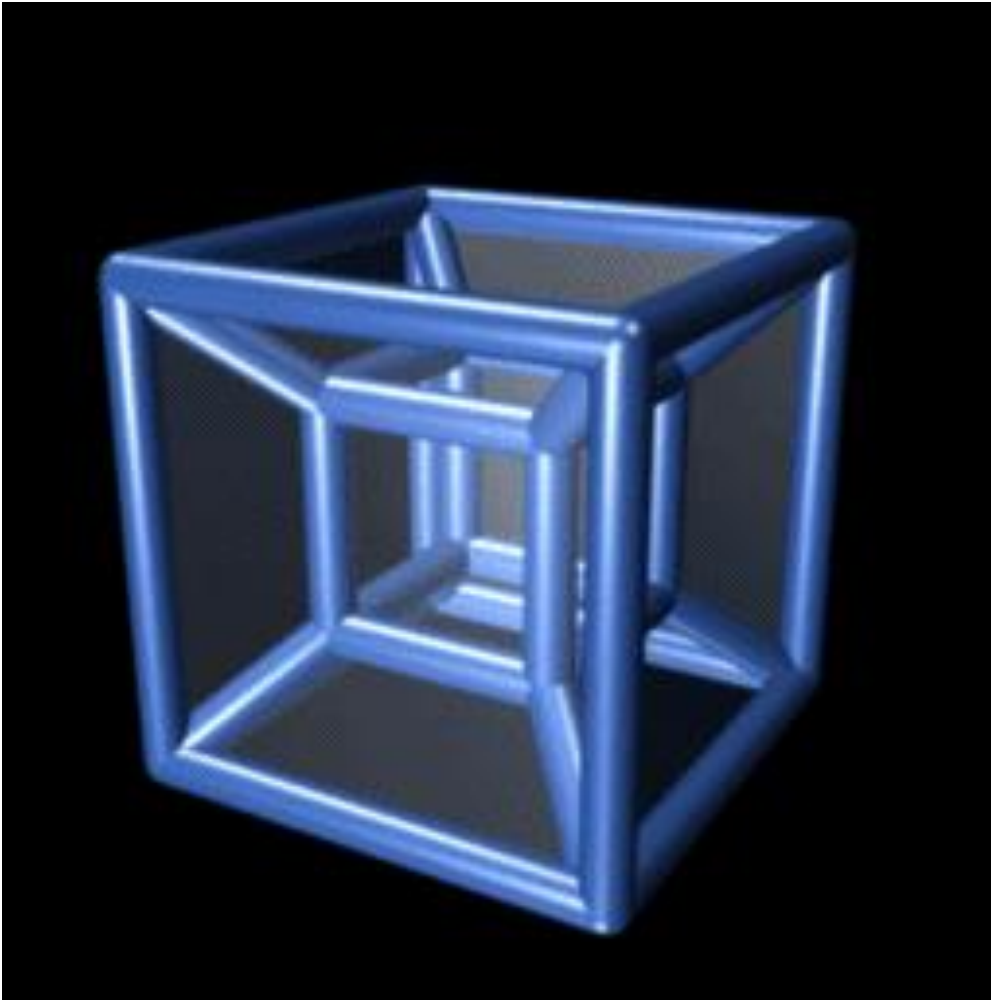
- Back to front [W] (reverse design)
- Right to left   [L] (non-linear)
- Up to down [H] (deeper learning)
- Temporal adjustment [T]

(progression over time)

Co-designing a dynamic curriculum
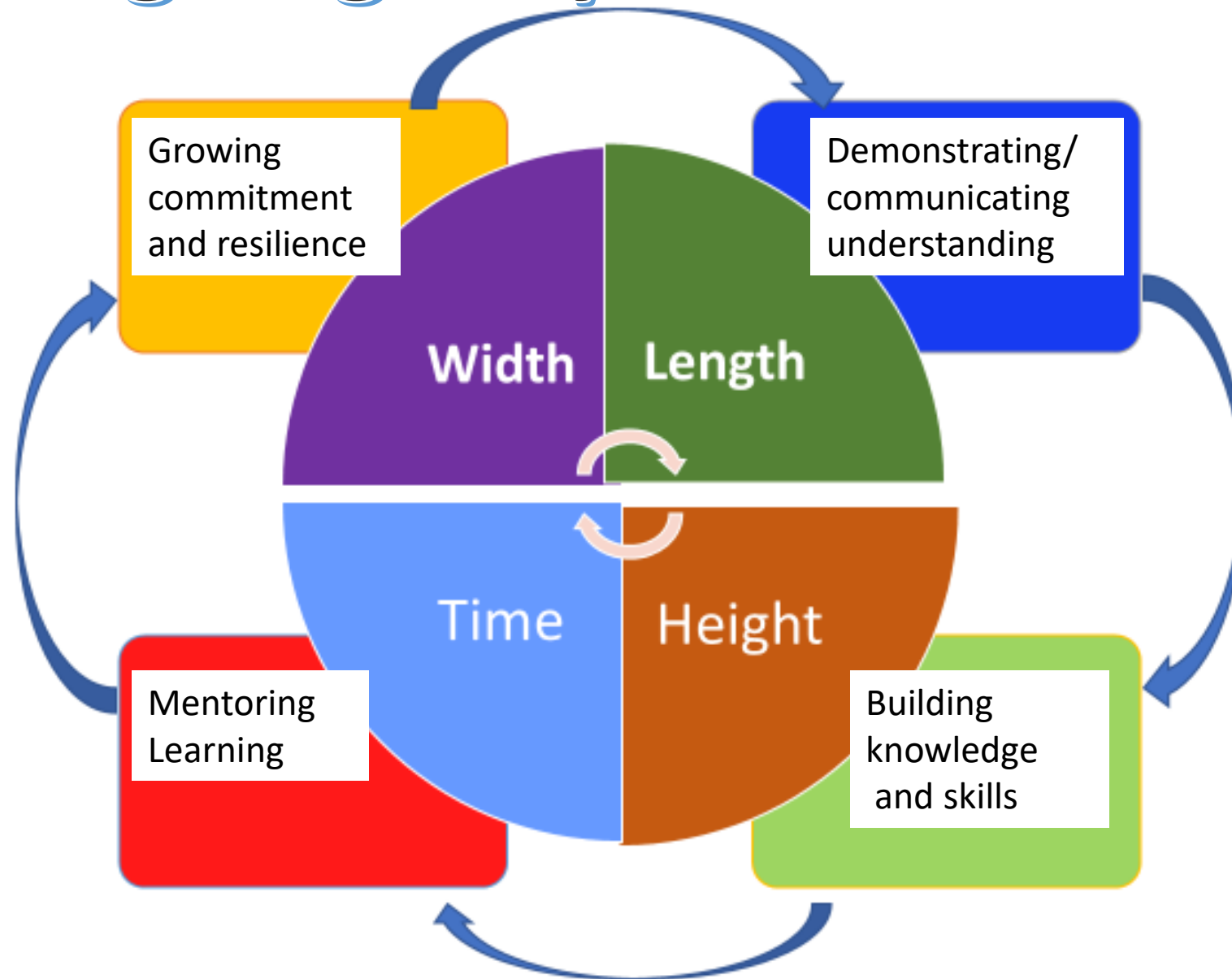
"the widespread redesign of curriculum and pedagogy by classroom teachers to allow students to capitalise on the various affordances of different modes of meaning-making—including the spatial—remains in an emergent stage".

Nothing new here or is there? Curriculum-making is what happens between educators and learners...

What are we learning and why? (rooted in critical learning spaces)

Where are we going? (what do we want to achieve? and how will we know?)

How do we get there – what is my/our learnscape (facing hybridity as a positive)

What digital tools can help us as well as other resources

Lets' think how if we press replay we could it differently?

Co-designing a Dynamic Curriculum Mapping Deeper Learning/ Ecologies

1. **WHAT /OUTCOMES**: What are the **key concepts/skills** that need to be learned? What do my students suggest/ tell me they want to learn?

2. **ACHIEVEMENTS**: How we know that deeper learning is/has happened - what is the **final lead activity** (learning intentions for individuals)? How will learners communicate their understanding? How can we **co-create a shared rubric**?

3. **SPACE/TASK DESIGN**: Which tasks will suit different learning spaces - learners a) working alone? b) working in learning hubs? c) working at home without assistance? d) working at home with assistance? e) home- school learning? f) community learning g)learners with languages other than English h) working in an indoor classroom? i) working outdoors? J) working in community spaces?   k) other environments?

4. **DIGITAL and OTHER RESOURCES**/TASK DESIGN: what/where can I find/use... to support **different types of learning**?

5. **REVIEW** with learners – celebrate learning

A combination of e-portfolios with aspirations and engagement allows students, teachers, parents and other learning partners to provide more effective feedback and to see students' learning progress more clearly.

Michael Fullan & Maria Langworthy 'A Rich Seam'

#madebydavis

Asking good questions – ourselves…..

- 'Webquest' approaches…..
- What are the questions? Who asks them?
- How are the *Learning Sets* organised?
- Peer evaluation
- Using rubrics
- Posting to the Gallery
- Sharing with others/families
- Blogs, logs, visuals and creativity
- Airdropping feedback

So decisions....

- Digital designers
- Digital detectives
- Digital drivers
- Digital dissonance
- Digital distance
- Digital deceleration
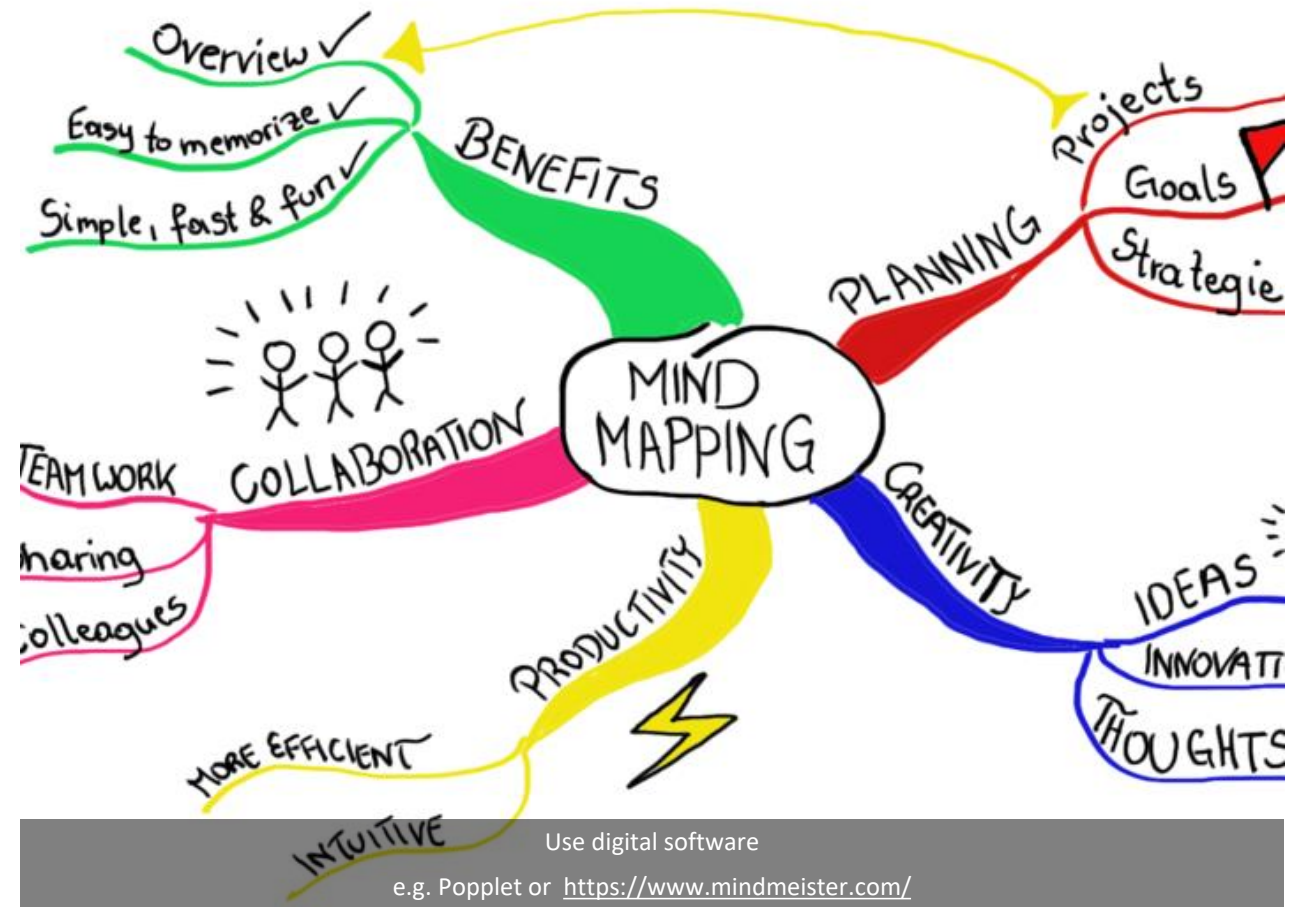
Digital learning spaces (virtual) and digital tools

💙

Favourites List

- Mentimeter
- Newslia
- Graphwords
- WordVis
- PerspecsNews
- OverEdit
- Animaker
- Elementari

- Webcams
- Sock puppets
- Head cams/web cams
- Simple digital tools

Favourite activities:
Mind mapping
Video creating with subtitles
Data gathering
Blogging
Air dropping oral feedback
Note-booking
Old technologies
Very new ones
Hyperlinking

https://ourview435958088.wordpress.com/

Green screen

Augmented reality

3-D printers

Future of shared learning spaces?

Robots and drones

Meet Nasa's Valkyrie a robot who could help build Mars base…..

- Exploring the use of drones for SLS outdoors
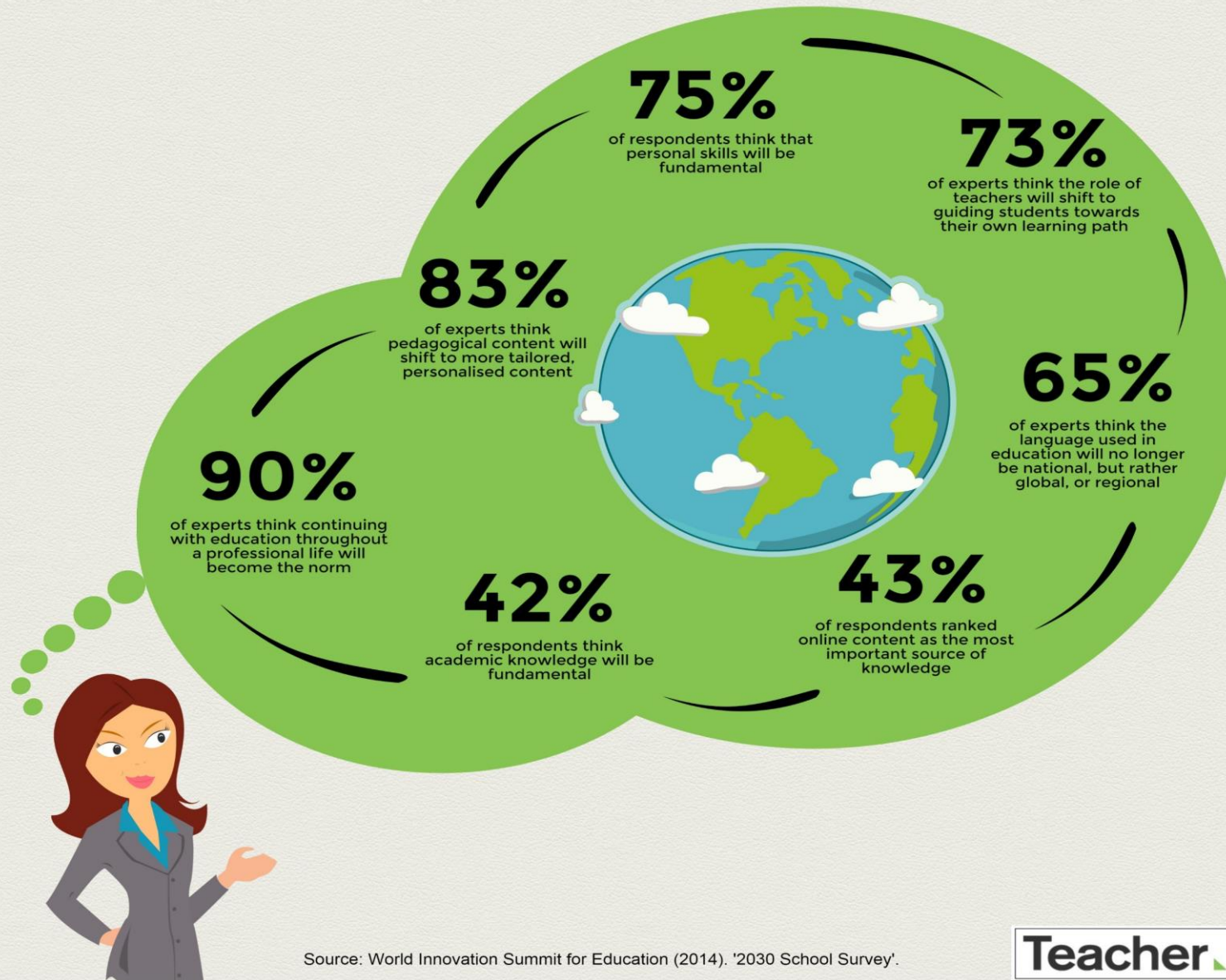- (in the image a drone is building a sculpture)

Slow down!

Healthy opportunities

Importance of 'space'

Turning physical spaces into Learnscapes

Digital digging

Shared Learning Spaces

4-D design for learning

Spatial Literacies

When catch up becomes 'build on'

Be kind to yourself - be realistic and proud

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Source: World Innovation Summit for Education (2014). '2030 School Survey'.

Teacher.

Thank you!

If you have any follow up

don't hesitate to get in touch   do.coyle@ed.ac.uk

Shared learning Spaces Team

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