

Academi Genedlaethol ar gyfer Arweinyddiaeth Addysgol Cymru National Academy for Educational Leadership Wales

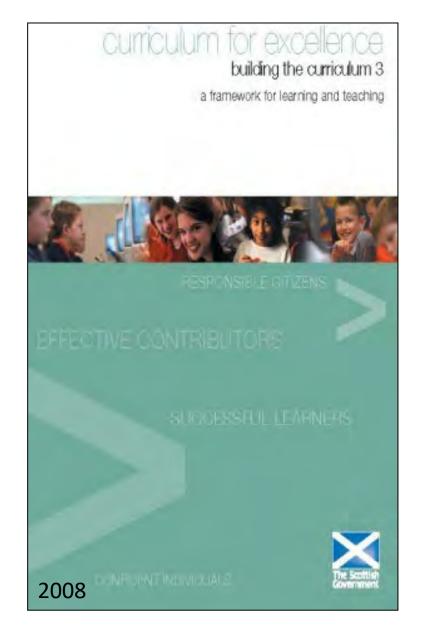
Ken Muir University of the West of Scotland

Independent Advisor to the Scottish Government

https://www.gov.scot/policies/schools/education-reform/

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Building the Curriculum 3: A Framework for Learning and Teaching (education.gov.scot)

- Coherent, inclusive curriculum 3-18
- Broad General Education BGE (P1 S3) inc.
 IDL
- Focus on Experiences and Outcomes flexible
- Senior phase (16-18) gain qualifications and take them when best suits individuals
- Opportunities to develop skills for learning, life and work inc. school/college links
- Literacy, Numeracy, Health and Wellbeing at every stage

successful learners

with

- enthusiasm and motivation for learning
- determination to reach high standards of achievement
- openness to new thinking and ideas

and able to

- use literacy, communication and numeracy skills
- use technology for learning
- think creatively and independently
- Iearn independently and as part of a group
- make reasoned evaluations
- Ink and apply different kinds of learning in new situations

confident individuals

with

- self-respect
- a sense of physical, mental and emotional wellbeing
- secure values and belief
- ambition

and able to

- relate to others and manage themselves
- pursue a healthy and active lifestyle
- be self-aware
- develop and communicate their own beliefs and view of the world
- live as independently as they can
- assess risk and take informed decisions
- achieve success in different areas of activity

To enable all young people to become

responsible citizens

with

- respect for others
- commitment to participate responsibly in political, economic, social and cultural life

and able to

- develop knowledge and understanding of the world and Scotland's place in it
- understand different beliefs and cultures
- make informed choices and decisions
- evaluate environmental, scientific and technological issues
- develop informed, ethical views of complex issues

effective contributors

with

- an enterprising attitude
- resilience
- self-reliance

and able to

- communicate in different ways and in different settings
- work in partnership and in teams
- take the initiative and lead
- apply critical thinking in new contexts
- create and develop
- solve problems

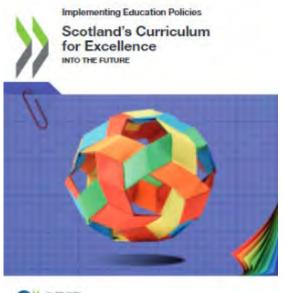
Education Reimagined: The Future of Learning Michael Fullan and Joanne Quinn Global Directors, New Pedagogies for Deep Learning www.npdl.global

Reimagining: Future focused Deep Learning

Even before the pandemic there was readiness building for a new system of learning. The current system had stalled, and the pandemic vividly exposed our systemic inability to optimize the use of technology, and truly ensure equity, well-being and quality of learning. Education reform has been high on the agenda for many systems, but has focused narrowly on literacy, numeracy, and high school graduation without addressing the holistic needs of students in an increasingly unpredictable global society. Quality learning must be built on the interests of students is

Curriculum for Excellence in context

Scotland's Curriculum for Excellence (CfE) offers an inspiring and widely supported philosophy of education. Its framework allows for effective curricular practices and for the possibility of a truly fulfilling education for learners. Building upon its commitment to education quality, Scotland can make adjustments within CfE's flexible framework to achieve its potential for learners present and future.

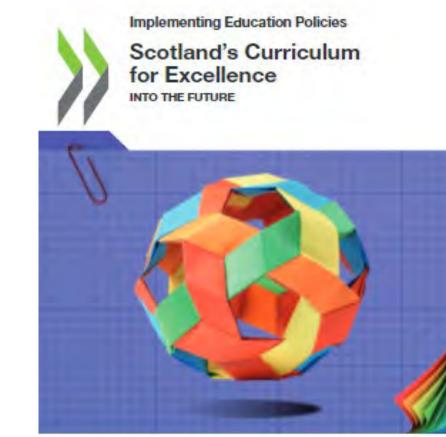


Key findings

OECD

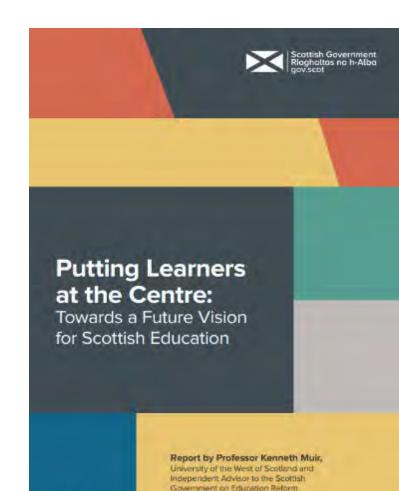
Scotland's Curriculum for Excellence continues to be a bold and widely supported initiative, and its design offers the flexibility needed to improve student learning further

Cabinet Secretary statement (June 2021)



"I want to be clear that this is not reform for reform's sake; all of the changes we make will be guided by the central principle that they improve the experiences and outcomes of children and young people in Scotland's education system."





Remit

- Replace SQA
- Remove HMI from Education Scotland
- Reform Education Scotland
- Consider establishing a Curriculum and Assessment body

Putting Learners at the Centre

Review of Quals and Assessment

National Discussion

Review of Skills Delivery Landscape

Review of Tertiary Education

Other reviews and reforms?



Consulting with children and young people

On behalf of Professor Ken Muir, University of the West of Scotland and Independent Advisor to the Scottish Government December 2021

> Children's Parliament

1210 Primary children3889 12-18 year olds

851 Consultation responses83 stakeholder engagements

Education Reform - Consultation Analysis Final Report February 2022

Putting Learners at the Centre

A summary report for children and young people in secondary school and college by Professor Ken Muir on behalf of the Scottish Government





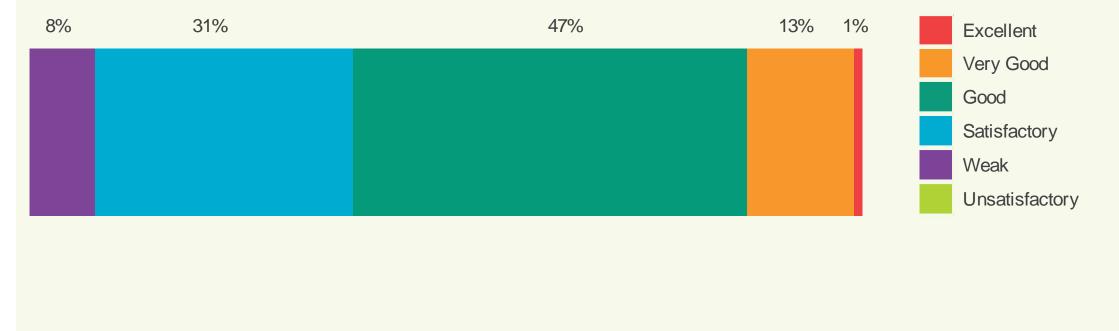
Community Collaboration Environmental Action

Innovation

Overcoming Adversity Supporting Healthy Lives Learning, teaching and assessment

QI 2.3 Evaluations

- Evaluations of 2.3 Learning, teaching and assessment (2018-2019)
- 252 schools





Some Views of Children and Young People

"We don't learn enough about the real world and its problems"

"Goals should be happiness, not exam results"

"It's the adults that decide what we learn. That's why it's not fun"

"It's not a waste of time but... they do help you learn but they [teachers] don't help you understand it. They just give you a worksheet"

Some Views of Children and Young People

"We just sit in chairs all day in the classroom, it is boring"

"Teachers do not respect pupils until they reach the senior phase"

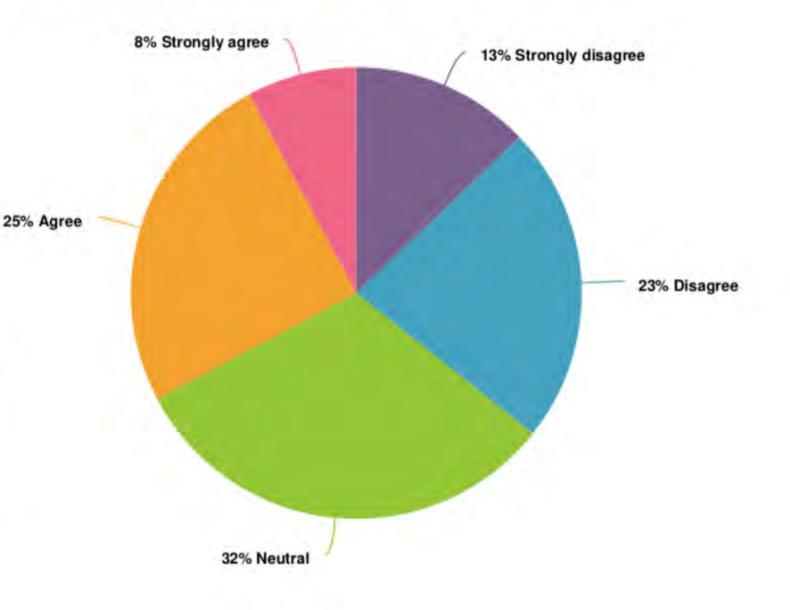
"I have learning disabilities but have had pretty much no support"

"I feel like they [teachers] don't really listen at all, they just give you something to do and then you're on your own"

I AM HAVING THE BEST POSSIBLE EDUCATIONAL EXPERIENCE

Strongly disagree 12.9% Disagree 22.8% Neutral 31.6% Agree 24.9% Strongly agree 7.9% Totals: 3,854

With 36% of 12- to 18year-olds disagreeing with this statement this is the statement most likely to see a negative response from survey respondents. Nearly 1 in 3 young indicate they are neutral on the statement, only 1 in 3 agree.



Some Views of HTs and Teachers

"There needs to be real empowerment for schools to develop rich and aspirational curriculum offers in their own contexts. The investment of time and cash should be in schools not national organisations."

"A national curriculum agency ie: a body solely focused on this area and rooted in classroom practitioners and senior leaders able to consider the whole picture and untrammelled by political or cultural ideologies."

"No one appears to listen to teachers in the development of these qualifications."

"The SQA exams at present have never been fit for purpose within CfE"

"I'm paid to be a leader of learning but am nothing but a leader of administration"

Some Views of HTs and Teachers

"There is value in the development of the SCQF approach to supporting progression in learning and recognising achievement across an expansive range of curricular areas."

"Strong transitions into each phase are very important as is the move away from believing that university life is the only pathway that is worthwhile."

"The culture that only assessment can confer value to learning is pernicious and should be challenged bravely by all in roles of educational leadership."

"There needs to be a deep debate and discussion about the future of the curriculum and the purpose of assessment, driven by the needs of young people and of the nation"

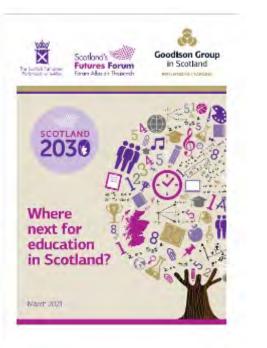
Our way through - part three: Voice from a future generation



ANTHONY PAINTER Former Chief Research & Impact Officer (CRIO)

I was born in 2050. The year the world was meant to achieve net zero. We know it didn't. That was the goal world leaders set for themselves some decades before I was born. 2050 was also the tenth anniversary of the Global Ecological Crash. It is difficult to imagine the world before this moment. But 2040 was the year the Siberian tundra released greenhouse gases at a volume the world couldn't recover from, Arctic ice caps disappeared for much of the year, and the slowdown in the Gulf Stream became catastrophic leaving northern Europe hot, flooded and frozen at different points in the year. America was ablaze. Much of the rest of the world suffered through starvation, disease, floods, fire, mass heat death and much else besides.

- (i) The pandemic's disruptive impact is accelerating forces of change that were already in place.
- (ii) The industrial model of education will struggle to survive against the emerging context.



- (iii) The educational mission of schools needs to be reasserted, reversing the trend towards training for specific, short-term goals.
 - (iv) Education for citizenship should be a central purpose of education.

These phrases are **flexibility, co-creation**, **creativity, inclusion and equity, culture, trust and relationships**. All of these have a connection or relationship with the UNCRC.

Changing nature of knowledge/skills and capabilities

Skills	9	Individuals prized for the depth of narrow specialism in their domain	>	Individuals prized for a balance of general meta and business skills and specialist technical skills
Learning	\$	Learning is based on a standardised, linear, mass-produced, one-size- fits-all model delivered within rigid term times	>	Learning is adaptive, tailored to individual requirements and preferences, and delivered just in time
Knowledge	9	Knowledge is disaggregated from skills and taught in an academic vacuum	>	Knowledge and skills are integrated and contextualised, and developed in real world settings
Standards		Qualifications do not reflect skills and competence required in the workplace	>	Common standards reflecting real workplace practice underpin all qualifications
Orientation of need	A	Learning offers driven by system and institutional preferences	>	Learning and skill development offers are guided by the needs of employers and learners
Innovation	*	Skills system innovation is driven by arbitrary decision-making based on political preferences, opinions and reputations	>	Skills system innovation is driven by data from the labour market, industry and individual behaviour

Technological Change



COURSE MOOCs are very similar to most online college courses.

Stanford on iTunes U

MASSIVE

There may be

100,000 +

students in a

MOOC.

https://itunes.stanford.edu/ @

Stanford on iTunes U is an archive of audio and video content from schools, departments, and programs across the university on Apple's popular iTunes platform ...

the Internet.

Harvard on iTunes U | Harvard University

for these

courses.

https://www.harvard.edu/itunes 🥝 🔻

Harvard on iTunes U allows the University to distribute world-class educational content to the world at large. Watch Michael Sandel give his famous "Justice" ...

The Open University on iTunes U www.open.edu/itunes/ @

Part of Apple's iTunes store, iTunes U is a vast learning resource offering free educational content that users can download straight to their computer, iPad, iPod ...

The University of Oxford in Apple Podcasts (formerly iTunes U ... www.ox.ac.uk/itunes-u @

Oxford's Apple Podcasts site (formerly iTunes U) launched in September 2008, featuring audio and video podcasts from across the University. It has been a ...

You can learn anything. For free. For everyone. Forever.

S Khan Academy

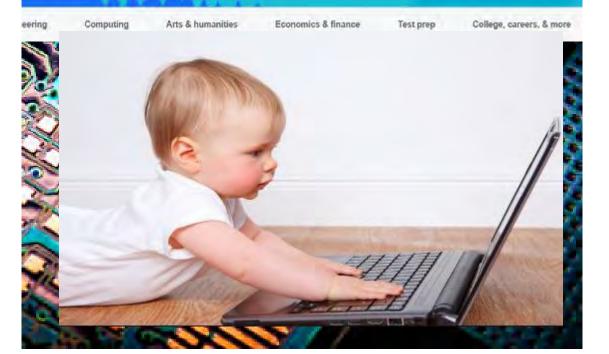
Q

Courses v

Search







Student Change: Generation Alpha (2010 -)

An age group that will have a digital footprint before they'll actually have left a physical footprint.

A generation that is already impacting the consumer market through its Millennial parents and a cohort that will attach great importance to high-level technology and the environmental and societal impact of their behaviours



"This new climate of connectivity makes the generational shift one of the biggest in history. While past generations have simply had access to technology, Generation Alpha will spend the majority of their lives completely immersed in it"

Student Change: Generation Alpha

Characteristics of Generation Alpha

Despite the fact that the oldest members of Generation Alpha are still only 11-12 years old – we already know certain elements that characterise this age group

1. They are immersed in technology

Generation Z is tech-savvy, but Alphas will spend the biggest part of their formative years totally immersed in technology.

They learn differently

Unsurprisingly, the rise of technology will cause a shift in the way children are learning. Teaching methods will move from a structured, often auditory approach to a more visual and interactive way of educating. The emphasis will be on problem-solving skills and peer-to-peer learning experiences and so-called connected classrooms will become the new normal.

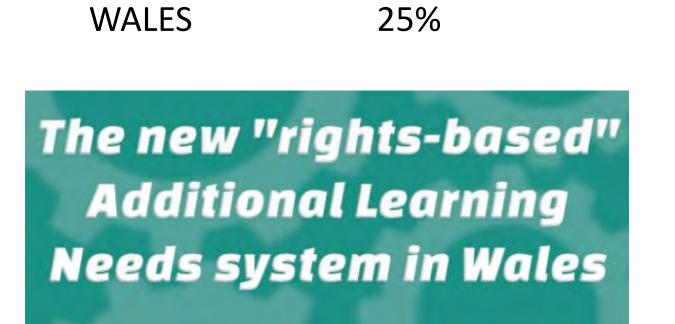
3. They are used to an excellent online user experience

This is something that stems from the above; as they have been exposed to different digital platforms pretty much from the moment they were born, Alphas don't know any better than to expect a seamless, personalized online experience, including cutting-edge ways to interact and communicate.

4. They are more inclusive and super aware of (public) image

Student Change

Students with Additional Support Needs	%
2010	10.3%
2015	19.7%
2019	30.9%



Support for Learning: All our Children and All their Potential

Angela Morgan

Climate Change

Implications for: what we teach how we teach how we prepare student teachers to teach how we live in our future society "Globalisation accelerates change but leaves some behind"

Prof. Ian Goldin, Oxford Univ.







Future Competences and the Future of Curriculum A Global Reference for Curricula Transformation

- Creativity, communication, critical thinking, problem solving, curiosity, metacognition
- Digital, technology, and ICTs skills
- Basic, media, information, financial, scientific literacies and numeracy
- Cross-cultural skills, leadership, global awareness
- Initiative, self-direction, perseverance, responsibility, accountability, adaptability
- Knowledge of disciplines, STEM mindset.

Future Competencies and Future Curriculum International Bureau of Education – UNESCO (2019)

The Future of Jobs Report 2020

OCTOBER 2020

Emerging skills

2.

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10.

11.

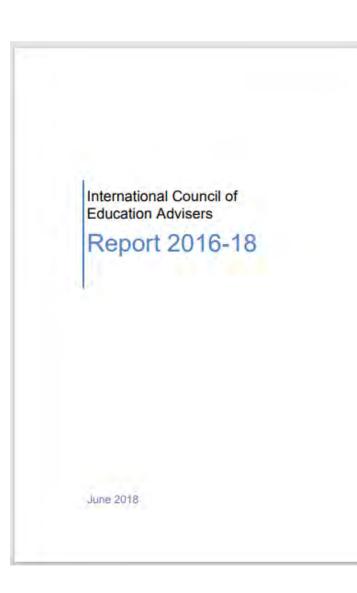
12.

14.

WORLD ECONOMIC

Skills identified as being in high demand within their organization, ordered by frequency

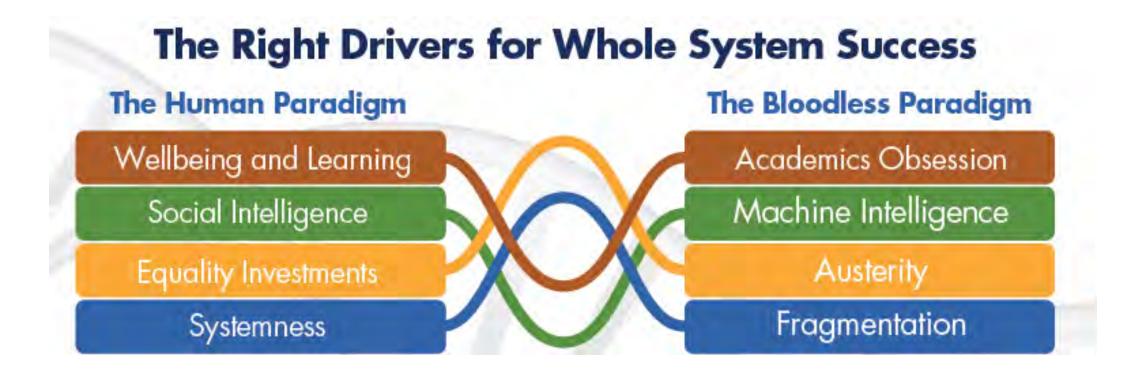
Active learning and learning strategies Analytical thinking and innovation Creativity, originality and initiative Complex problem-solving Critical thinking and analysis Emotional intelligence Resilience, stress tolerance and flexibility Leadership and social influence Technology design and programming Reasoning, problem-solving and ideation Systems analysis and evaluation Technology use, monitoring and control Service orientation 13. Persuasion and negotiation Instruction, mentoring and teaching 15.



Professional empowerment: While initial large-scale educational reforms for a whole country often require clear direction from the centre from national government, to move to sustainable high-quality implementation requires a shift to professionally-led educational improvements within and across classrooms, schools and local authorities.

Responsiveness: Empowered education professionals and policy-makers are also highly alert, adaptive, and responsive to local needs, priorities, changes and challenges.

Ownership: Putting the above together – empowerment of all involved and responsiveness to professional judgement and evidence – is vital to developing the co-ownership that is essential to realise the ambitions of excellence and equity for all learners, and the priority to close the historical and persisting poverty-related attainment gap in Scotland. It is important that Scotland's education system is both worldleading and uniquely and appropriately Scottish.



Students should find school as a place where they feel good about themselves and the person they are becoming; where they have opportunities to develop or strengthen positive values in themselves and in their colleagues; where they influence their own environments (in school, in the community, in their world); and where student voice and agency are not so much 'permitted', but are deliberately activated as a natural byproduct of the culture built in the school and the system as a whole.

Wellbeing and Learning

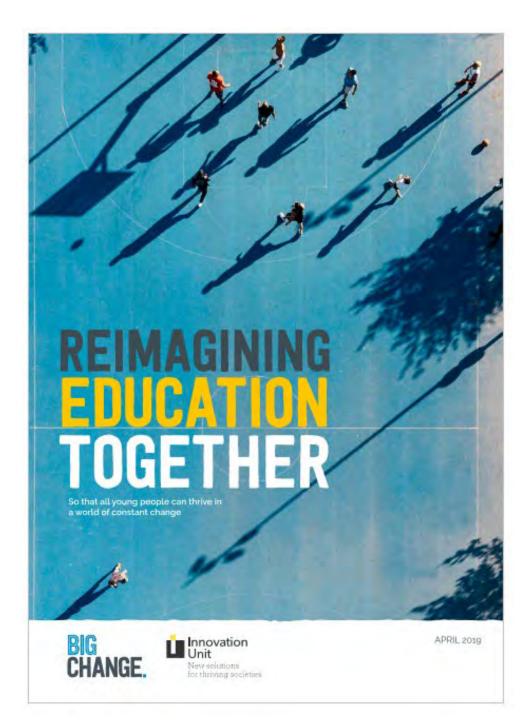
In our ever-complex and contentious world we can no longer afford to separate wellbeing and learning. For one thing wellbeing is learning. As complexity in the world has evolved, Wellbeing and Learning represent an integrated concept. You cannot be successful on one without the other. They feed each other in a way that success begets success.

As complexity in the world has evolved, Wellbeing and Learning represent an integrated concept. You cannot be successful on one, without the other. Unless educators focus on teaching the skills that are uniquely human - independent thinking, teamwork, and caring for others - kids don't stand a chance. If we do not change the way we teach our children, in 30 years we will be in big trouble.

Jack Ma, former head of Chinese e-commerce giant Alibaba, World Economic Forum in 2018

The skills needed include "problem-solving, collaborative problem-solving and 'global competencies', such as open-mindedness and the desire to make the world a better place... creative thinking, [and] habits of creativity such as being inquisitive and persistent.

Andreas Schleicher, Head of Education at OECD



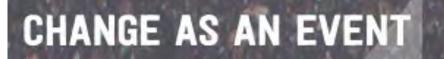
BUILDING A CHANGE-READY, ADAPTIVE SYSTEM

In a world of constant change there is no identifiable end state. The shift to change-readiness is to move from a relatively static system to one that is adaptive and able to evolve as needs and learning change. From change as an event to be managed, to change as a muscle to be built and a practice to be honed. From change that happens to people, to change that happens with people.

CHANGE AS AN EVENT

Rapid reform	PURPOSE	Transformation
Short term	SUCCESS HORIZON	Long term
Top down	LEADERSHIP	Collective responsibility
Recipients of change	TEACHERS, PARENTS & STUDENTS	Agents of change

CHANGE READY SYSTEM



Roll out for mass adoption

IMPLEMENTATION

SUPPORT

To judge and assess compliance

Initial training at roll out

ROLE OF CENTRAL BODIES

Assess, stop/continue

ONGOING DEVELOPMENT

CHANGE READY SYSTEM

Empowering & supporting local adaptation

Ongoing learning and coaching

To facilitate learning and improvement across the system

Review, adapt, scale

TRADITIONAL VERSUS DEEP LEARNING

TRADITIONAL	DEEP		
Teacher driven	Student led - Teacher framed		
Transmits existing knowledge	Connects students to real-world, authentic problem solving		
Compliance oriented	Builds new relationships between and among learners, teachers, families, and community		
Student is receiver of knowledge	Student is an inquirer and builds knowledge		
Learning is impersonal	Learning connects meaningfully to student interest and voice		
Student agency is unclear	Deepens human desire to connect with others to do good		
Technology used for transmission and consumption	Technology as a connector and amplifier		

Profile the Deep Learner: Six Global Competencies





Character

- Proactive stance toward life and learning to learn
- Grit, tenacity, perseverance, and resilience
- Empathy, compassion, and integrity in action

Citizenship

- A global perspective
- Commitment to human equity and well-being through empathy and compassion for diverse values and world views
- .Genuine interest in human and environmental sustainability
- Solving ambiguous and complex problems in the real world to benefit citizens



Collaboration

- Working interdependently as a team
- Interpersonal and team-related skills.
- Social, emotional, and intercultural skills
- Managing team dynamics and challenges



Communication

- Communication designed for audience and impact
- Message advocates a purpose and makes an impact
- Reflection to further develop and improve communication
- Voice and identity expressed to advance humanity



Creativity

- Economic and social entrepreneurialism
- Asking the right inquiry questions
- Pursuing and expressing novel ideas and solutions
- Leadership to turn ideas into action



Critical Thinking

- Evaluating information and arguments
- Making connections and identifying patterns
- Meaningful knowledge construction
- Experimenting, reflecting, and taking action on ideas in the real world

	Scottish Government	Qualifications Scotland	National Agency for Scottish Education	SCQF Partnership	HM Inspectorate of Education
Roles	Overarching education policy	Chief Examining Office	Chief Executive		 Independent assurance to the people of Scotland on the performance of the Scotlish education system Perform evaluations of establishments and systems Provide support to establishments and systems to aid improvement
	Transition programme team to oversee the changes and reform	Award qualifications	Bespoke support and professional learning at both regional and local levels, working in partnership with local authorities	awareness of the benefits of the SCQF across all sectors both national and internationally	
		Deliver qualifications			
		Operate and certificate examinations			
		Provide services and deliver contract services	Advise the Scottish Government on: curriculum, learning and teaching, assessment policy, professional learning and leadership		
			Create and sustain a forum for ongoing and proactive discussion		
			Elements of Scottish Government's Curriculum, Qualifications and Gaelic Division		
		\rightarrow	Insight professional advisors and the Insight online tool		
			SCOF Partnership		improvement
			CLD Standards Council		
		Regulate and accredit qualifications	Regulate and accredit qualifications		
		Regulate, approve and quality assure awarding bodies	Regulate, approve and quality assure awarding bodies		
	Registrar of Independent Schools		Registrar of Independent Schools		
			Inspections/Scrutiny		

Principles Informing a Re-imagined System

- UNCRC Article 29
- Excellence and Equity
- Place-based, responsive, bespoke support
- Early years + outdoor learning
- Reduced bureaucracy and appropriate accountability
- Diverse society recognition
- Increased collaboration
- Collation/sharing/use of data

- Climate change driver
- Simplification + Coherence in Policy + Support
- Focus on learning and teaching
- Assessment review + SCQF
- Redistribution of power, influence and resource – a "bottom-up hierarchy"
- Trusting relationships
- Resourcing to meet needs
- Good governance

System Intervention: Leverage Points

Weaker leverag

Easier to implement

Parameters

infrastructure, metrics, materials

Feedback shifts in interactions inside systems Change access to information Change negative feedback loops Change speed of feedback loops Change flow of resources Change level of resources

Strongerleverage

Design

shifts in powerand

structures

Harder to implement

Change measurable parameters

Change ability to transcend paradigms Change public mindset Change goals Change power to design the system

Change the rules governing the system

Change positive feedback loops

Purpose

shifts in goals, beliefs,

values orienting values orienting

Thinking in Systems Donella H. Meadows

The System

Some Cultural and Mindset Shifts

Relationships Attitudes Values Behaviours
"absolute primacy of focus on individual learners and their diverse needs"

- "A reorientation of resource to provide place-based, responsive, bespoke support for teachers and practitioners supporting the learning of children and young people. Wherever possible, the allocation of resources should support local decision making."
- "A redistribution of power, influence, and resource within Scottish education to one that reflects the principles of subsidiarity, genuinely empowers teachers and practitioners and where learners' voices, experiences, perspectives and rights are central to decision making."

EDUCATION IS SIMPLY THE SOUL OF A SOCIETY AS IT PASSES FROM ONE GENERATION TO ANOTHER.

- G.K. Chesterton

Scotland 1 v. Wales 6

- Initial engagement with practitioners
- Ministerial and Cross-party support for Successful Futures recommendations (2-1)

(1-1)

(5-1)

(6-1)

- Investment in building capacity, Pioneer Schools, estb. of NAEL, etc (3-1)
- Strategic Approach to Reform Review of Estyn, Teacher Ed, Prof. Standards (4-1)
- External monitoring of progress via Independent Advisory Group
- Creation of a different and sustainable educational culture

Questions in re-imagining education

- To what extent are our schools and curriculum preparing current and future learners for the world which they will encounter and in which they need to survive and thrive?
- How best do we ensure that student and teacher voice and agency are deliberately activated as a natural byproduct of the culture built in the school and the system as a whole? What other aspects of culture need to change?
- What opportunities does the curriculum offer for learners to develop global competencies?
- What metrics should be used to determine success?
- What should learning and our education system look like if we are to live lives that have meaning for the individual and significance in the world, and to work together to solve our greatest problems?
- What purposes do learning and education systems need to serve if humanity and our planet are to flourish?



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