



New Pedagogies for Deep Learning

A Global Innovation Partnership



New Pedagogies for
Deep Learning™
A GLOBAL PARTNERSHIP

Who we are...

**OVER 1000 SCHOOLS ACROSS 7 COUNTRIES
DEVELOPING DEEP LEARNING**





Canada

USA

Finland

Netherlands

Uruguay

Australia

New Zealand

Global network
NPDL Clusters located in seven countries around the world working together to design deep learning, develop new pedagogies that enable deep learning, and improve learning conditions that expand deep learning.

OUR PURPOSE

To foster deep learning so that all learners contribute to the common good, address global challenges and flourish in a complex world.

What we do...



**We build knowledge and practices
that foster deep learning and
whole system change**



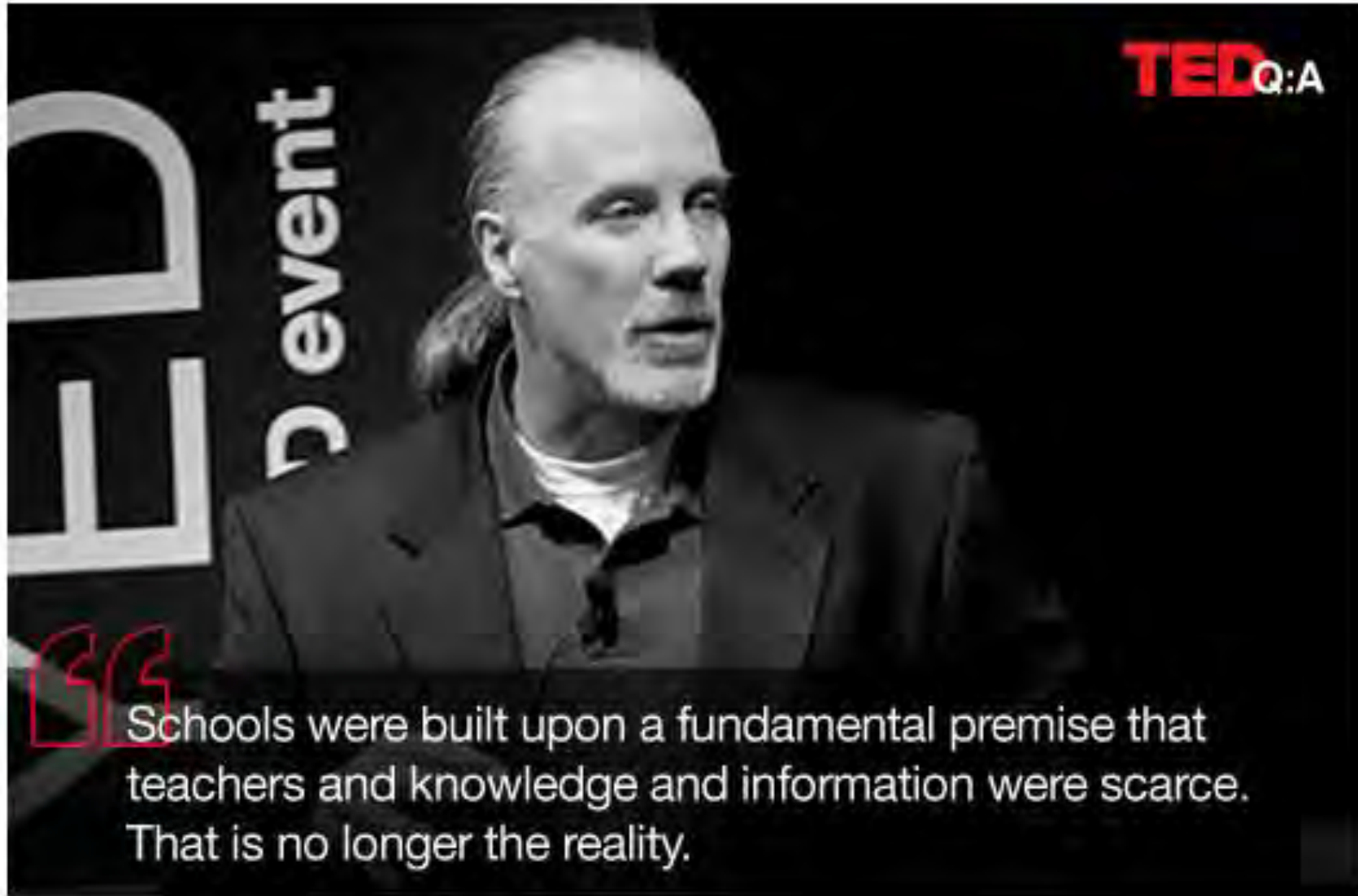
**Why
Innovation?**

Why *NOW*?



The Complexity of our society...

- digitization of massive amounts of information
- smart systems that communicate interdependently
- the wholesale rewriting of industry norms and business models



**Traditional
schooling is
outdated...**

Schools were built upon a fundamental premise that teachers and knowledge and information were scarce. That is no longer the reality.

Will Richardson

The labor market is askew

Non routine cognitive

- Forming/testing hypotheses
- Medical diagnosis
- writing
- Persuading/selling
- Leading & Managing others

Routine cognitive

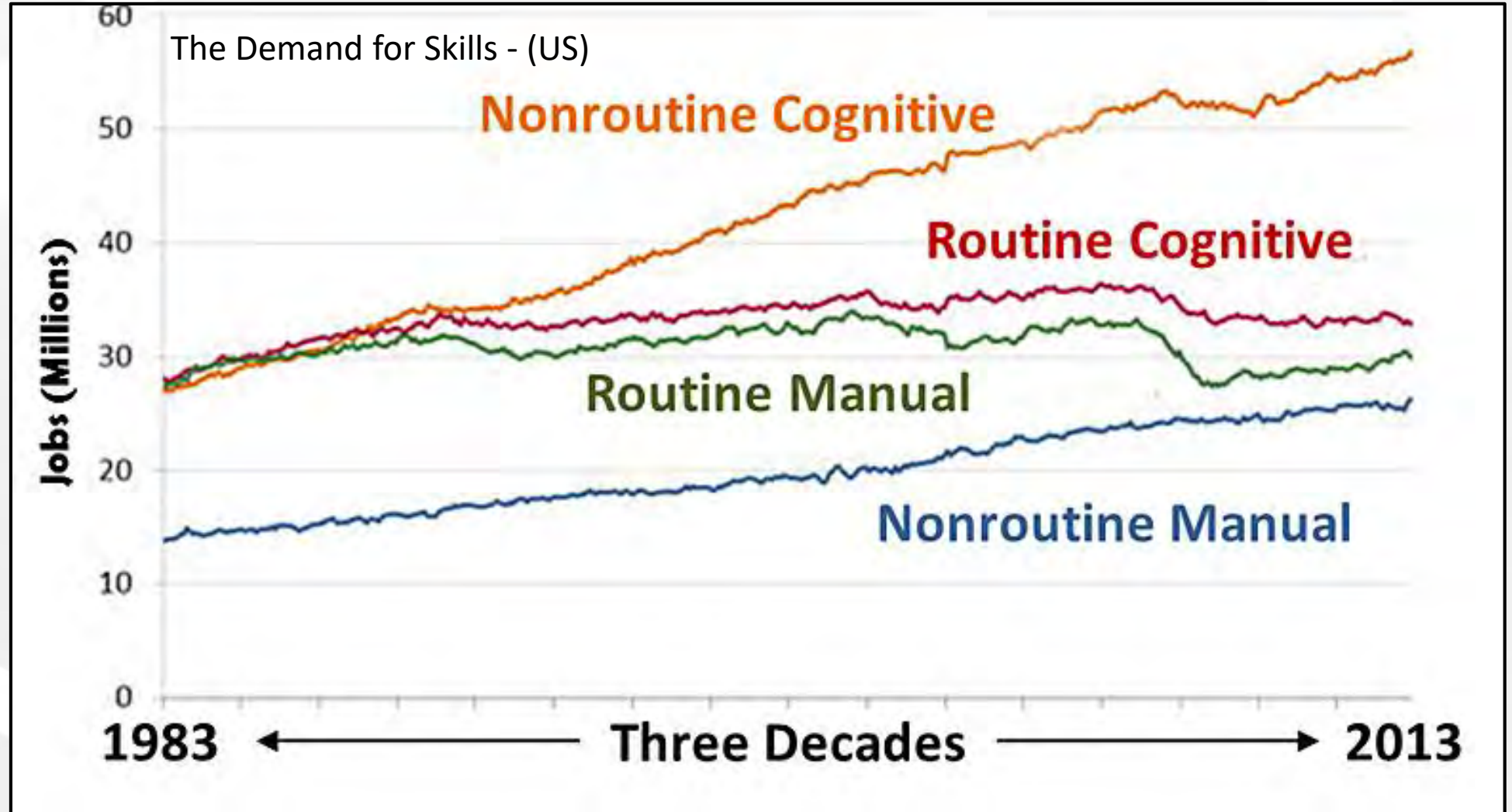
- Record-keeping
- Calculation
- sales & office occupations
- Repetitive customer service(e.g., bank teller)

Routine manual

- Picking or sorting
- Repetitive assembly
- construction,
- transportation,
- production and repair

Non routine manual

- service occupations
- assisting or caring for others



The dilemma for schools:

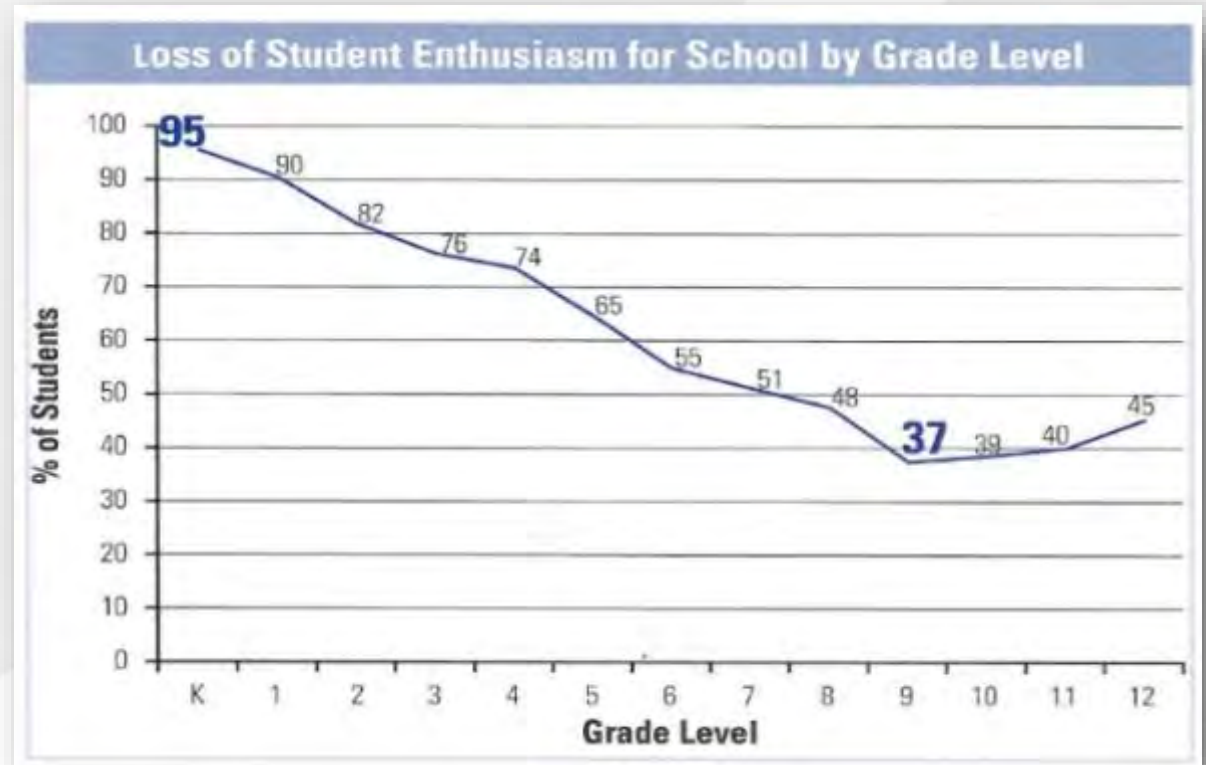
The skills that are easiest to teach and test are also the ones that are easiest to digitise, automate and outsource.



The Push-Pull Dynamic

The **push factor** is that students are increasingly bored in school

For teachers one could say that there is only **one thing worse than being bored** and that is “having to teach the bored.”





The Push-Pull Dynamic

The **pull factor** is that the exploding and alluring **digital world is irresistible.**

The **digital world** of learning and entertainment is exploding - **most of it outside schooling**



“every turned off device is potentially a turned off child” stephen heppel



engage the world
change the world



“ THE BEST WAY TO
PREDICT THE **FUTURE** IS TO
CREATE IT. ”

-Peter Drucker



What is Deep Learning... and how do we measure it?

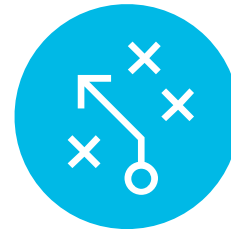
Global Competencies for Deep Learning – 6 C's

Six Global competencies define what it means to be a deep learner.

Deep Learning experiences are engaging, relevant, authentic and build the 6 C's.

CREATIVITY

Having an 'entrepreneurial eye' for economic and social opportunities, asking the right inquiry questions to generate novel ideas, and leadership to pursue those ideas and turn them into action.



CRITICAL THINKING

Critically evaluating information and arguments, seeing patterns and connections, constructing meaningful knowledge, and applying it in the real world.

COMMUNICATION

Communicating effectively with a variety of styles, modes, and tools (including digital tools), tailored for a range of audiences.



CHARACTER

Learning to deep learn, armed with the essential character traits of grit, tenacity, perseverance, and resilience; and the ability to make learning an integral part of living.

CITIZENSHIP

Thinking like global citizens, considering global issues based on a deep understanding of diverse values and worldviews, and with a genuine interest and ability to solve ambiguous and complex real-world problems that impact human and environmental sustainability.



COLLABORATION

Work interdependently and synergistically in teams with strong interpersonal and team-related skills including effective management of team dynamics and challenges, making substantive decisions together, and learning from and contributing to the learning of others.



A Deep Learning Progression is a description of what a student's knowledge and skills look like at different levels as they develop the Deep Learning competencies.

Collaboration Deep Learning Progression

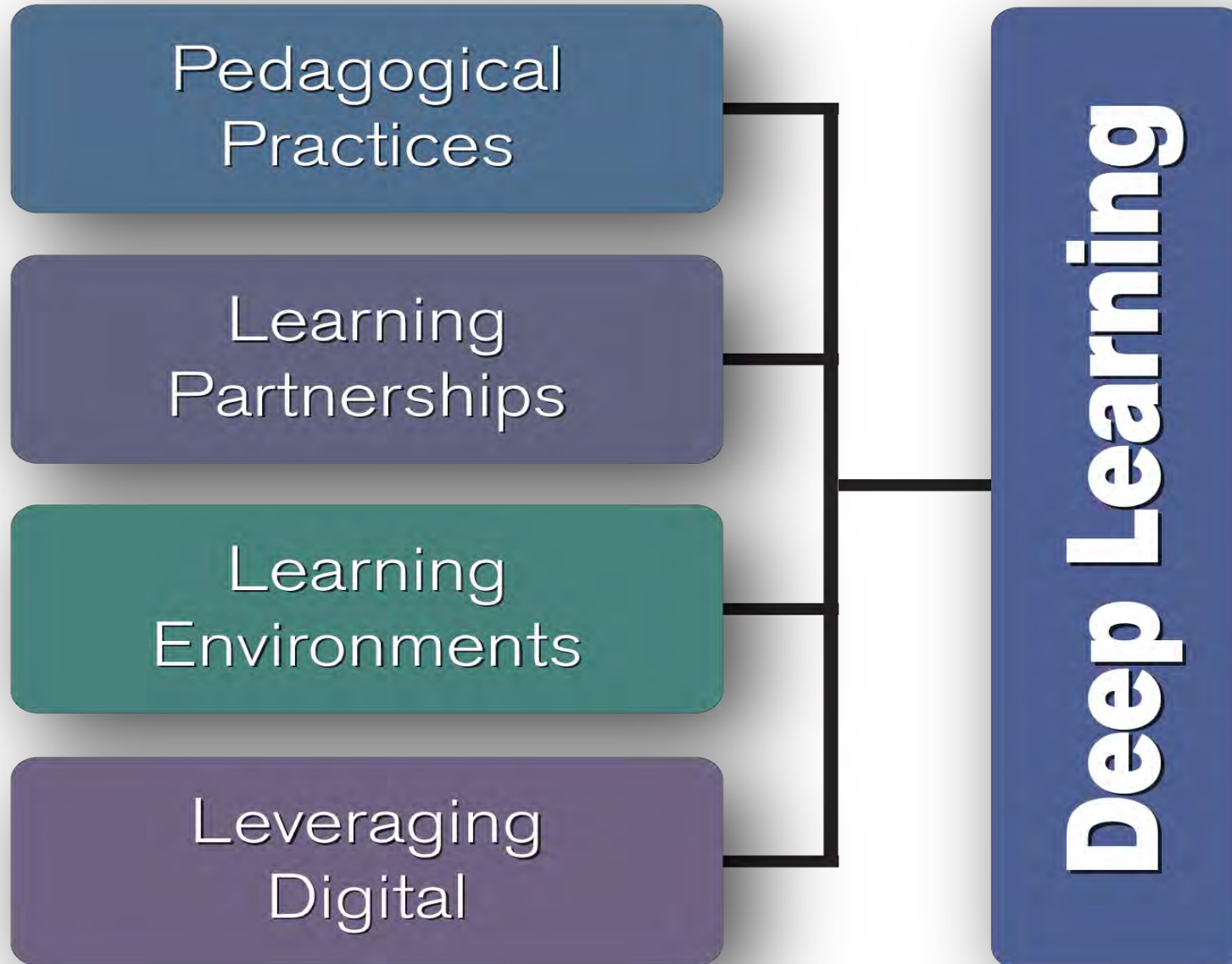
Work interdependently and synergistically in teams with strong interpersonal and team-related skills including effective management of team dynamics and challenges, making substantive decisions together, and learning from and contributing to the learning of others.

Dimension	Limited Evidence	Emerging	Developing	Accelerating	Proficient
Working interdependently as a team	<p>Learners either work individually on learning tasks or collaborate informally in pairs or groups but do not really work together as a team.</p> <p>Learners may discuss some issues or content together, but skip over important substantive decisions (such as how the process will be managed), which has significant adverse impacts on how well the collaboration works.</p>	<p>Learners work together in pairs or groups and are responsible for completing a task in order for the group to achieve its work. At this level, tasks may not be well matched to each individual's strengths and expertise, and group members' contributions may not be equitable.</p> <p>Learners are starting to make some decisions together, but may still be leaving the most important substantive decisions to one or two members.</p>	<p>Learners decide together how to match tasks to the individual strengths and expertise of team members, and then work effectively together in pairs or groups. Learners involve all members in making joint decisions about an important issue, problem, or process, and developing a team solution.</p>	<p>Learners can articulate how they work together in a way that is interdependent and uses each person's strengths in the best possible way to make sound substantive decisions and develop ideas and solutions.</p> <p>Interdependent teamwork is clearly evident in that learners' contributions are woven together to communicate an overarching idea and/or create a product.</p>	<p>Learners demonstrate a highly effective and synergistic approach to working interdependently in a way that not only leverages each member's strengths but provides opportunities for each to build on those strengths and learn new skills.</p> <p>This includes ensuring that substantive decisions are discussed at a deep level that ensures each team member's strengths and perspectives are infused to come to the best possible decision that benefits all.</p>
Interpersonal and team-related skills	<p>Although learners may help each other on tasks that contribute to a joint work product or outcome, interpersonal and team-related skills are not yet evident.</p> <p>Learners do not yet demonstrate a genuine sense of empathy or a shared purpose for working together.</p>	<p>Learners report and demonstrate a sense of collective ownership of the work and show some interpersonal and team-related skills. The focus is on achieving a common or joint outcome, product, design, response or decision, but at this level the key decisions may be taken or dominated by one or two members.</p>	<p>Learners demonstrate not only good interpersonal skills and collective ownership of the work; an active sense of shared responsibility is also evident.</p> <p>From beginning to end, the team listens effectively, negotiates and agrees on the goals, content, process, design, and conclusions of their work.</p>	<p>Learners can clearly articulate how joint responsibility for the work and its product or outcome pervades the entire task. Strong skills in listening, facilitation, and effective teamwork ensure that all voices are heard and reflected in the ways of working or work product.</p>	<p>Learners take an active responsibility, both individually and collectively, for ensuring that the collaborative process works as effectively as possible, that each person's ideas and expertise are used to maximum advantage, and that each work product or outcome is of the highest possible quality or value.</p>



What are the new pedagogies?

4 Core elements



Fusion of Pedagogical and Innovative Practices

Models

- Inquiry
- Problem based
- Experiential
- Simulations
- ...

Design Skills

- Universal design
- Scaffolding
- Gradual release of responsibility
- ...

Teaching strategies

- Cooperative learning
- Graphic organizers
- Reciprocal teaching
- Thinking skills
-

Assessment

- Formative
- Summative
- ...



Models

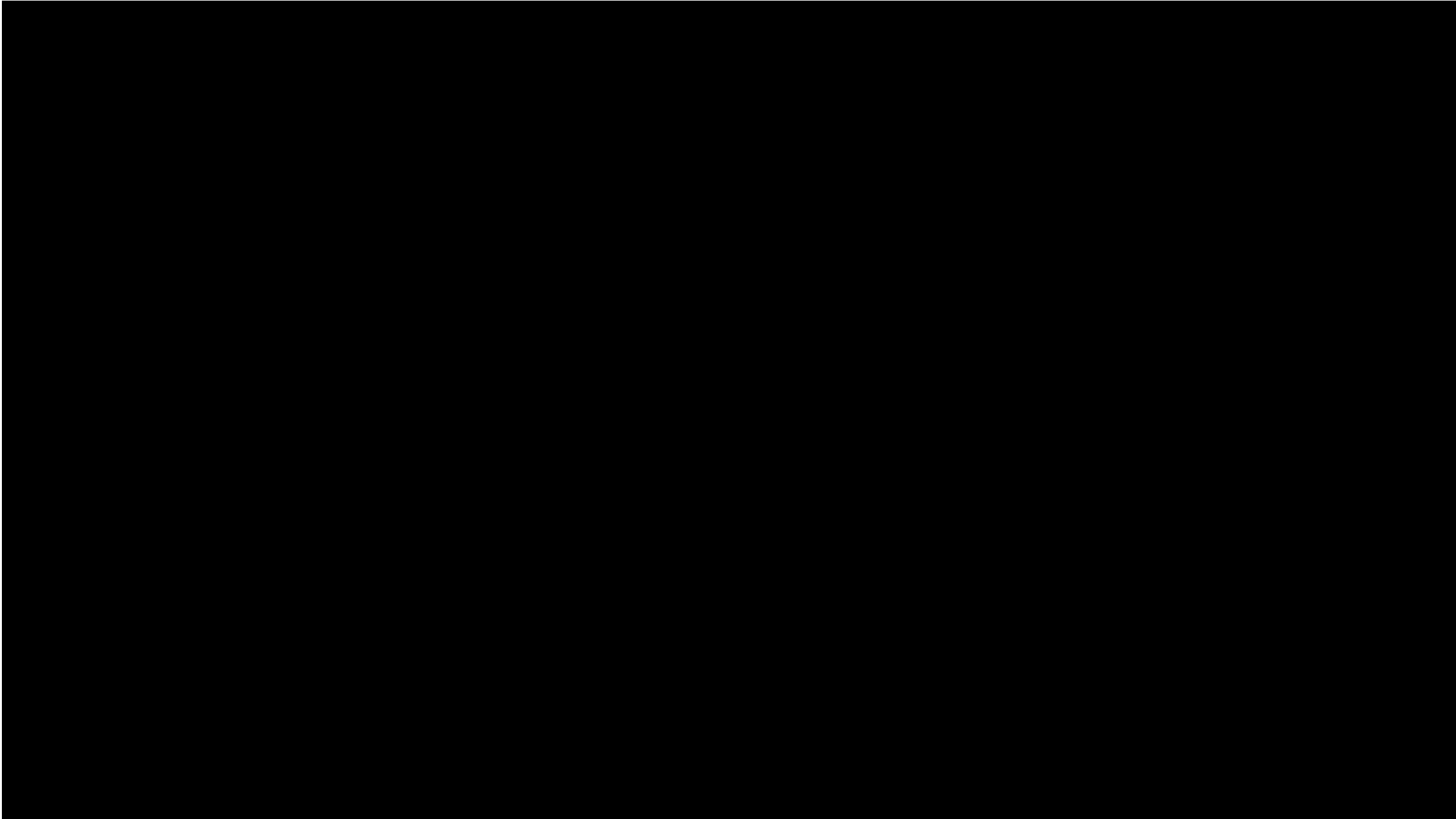
- Co design by learning partners
- Blended learning
- On line learning
- ...

Strategies

- Learning partnerships
- collaboration tools
- Threaded discussions
- Blogs, wikis
- Apps
- Gaming
- Coding
- Minecraft

Assessment

- Feedback analytics
- Self assessment
- Peer assessment
- ...



Precision and Coherence [6+4]

Global Competencies for Deep Learning- 6 C's

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Pedagogical Practices

Learning Partnerships

Learning Environments

Leveraging Digital

Deep Learning

How it all Comes Together

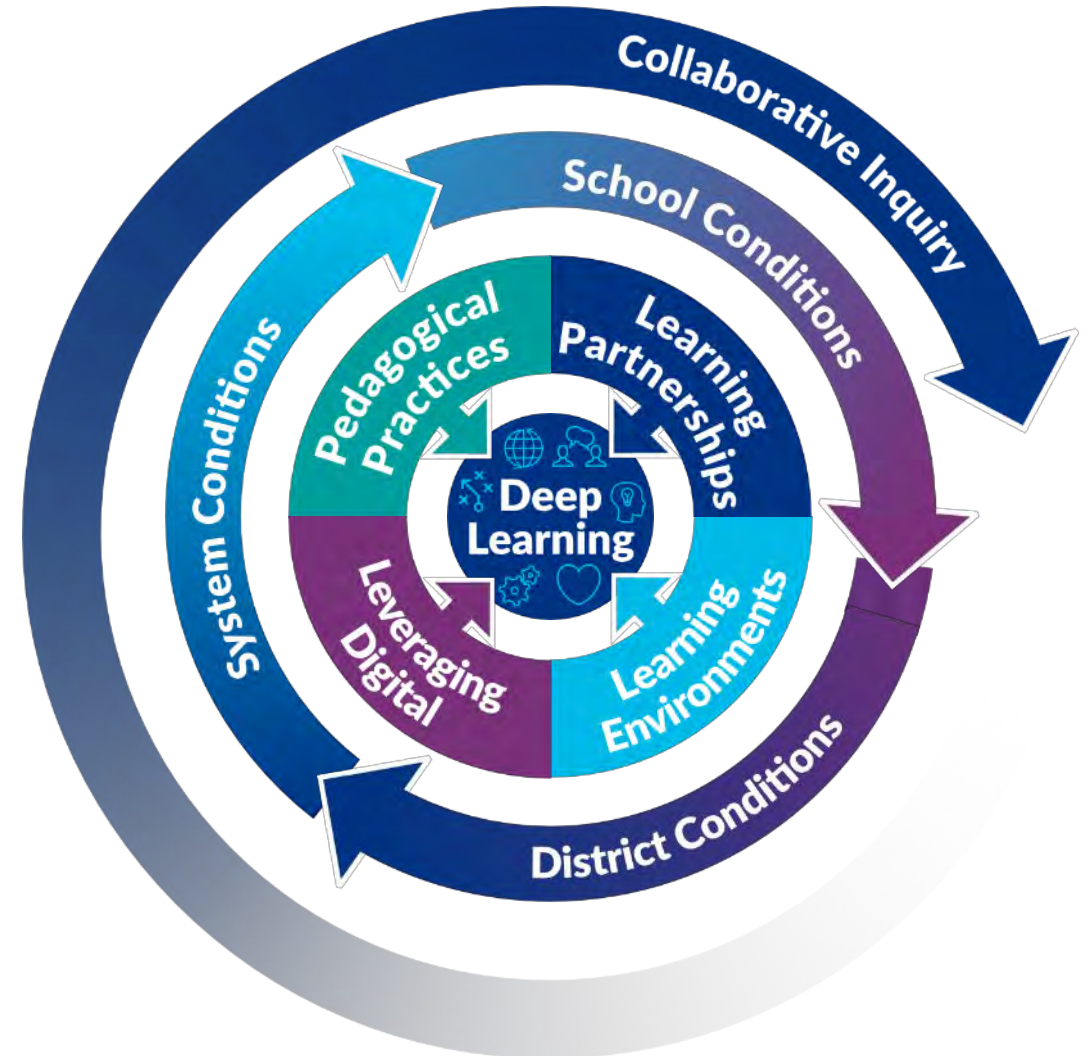
Clarity of learning goals (6 C's)



Precision in Pedagogy (4 elements)



Collaborative work (inquiry cycle)



Support - Our Suite of Tools

Deep Learning Progressions

Learning Progressions to assess and measure deep learning competencies:

- Character
- Citizenship
- Collaboration
- Communication
- Creativity
- Critical thinking

Learning Design New Pedagogies

Tools and protocols to design deep learning experiences:

- New Pedagogies Learning Design Rubric
- New Pedagogies Learning Design Protocol
- Teacher Self-Assessment

Learning Conditions

Rubrics to assess:

- System Conditions
- Cluster Conditions
- School Conditions
- Implementation Diagnostic

How we support globally....

The Deep Learning Hub A collaborative learning and data collection platform for the deep learning journey

The screenshot shows the top navigation bar with the logo 'New Measures for Deep Learning A GLOBAL PARTNERSHIP' and a search bar. Below the navigation bar is a main banner with the text 'Engage the World Change the World' and 'NPD L GLOBAL DEEP LEARNING LAB'. The banner also mentions 'Toronto, Canada' and dates for 'Cluster Members: May 1-3, 2017' and 'Non-Members: May 1-2, 2017'. Below the banner are four main sections: 'People Connect', 'Capacity Building Tools and Resources', 'Join a Discussion Forum', and 'New Measures'. At the bottom, there is a 'Welcome to the Deep Learning Hub!' section and a 'Deep Learning Hub Guide' section.

Connects people to:

- Educators across the globe
- Exemplars of deep learning created by teachers
- Tools and resources

Capacity Building Support Modules

- 1  Defining Deep Learning
- 2  Building Precision in New Pedagogies
- 3  Using Learning Progressions
- 4  Designing Deep Learning
- 5  Assessing Conditions for Deep Learning
- 6  Building Capacity for Deep Learning

What are we seeing and learning?

- Shifts in pedagogical practices
- Increased “professionalism” of educators
- Student performance on global competencies
- The equity hypothesis



Designing Deep Learning



"The four elements of the new pedagogies triggered an 'aha' moment — they made teachers think about how they were designing their learning."

- The New Pedagogies Learning Design Protocol supports teachers in the design of deep learning experiences.
- The New Pedagogies Learning Design Rubric facilitates the assessment of deep learning experience design and re-design.

Professional Connections

- Conversations
- Moderation
- Shared design
- Pedagogical partnerships



One thing that came up as very positive was the exchange between different schools and the good receptions between different principals at both high schools and primary schools. In the evaluation of workshops, they mentioned that they were working on...

Their



As educators, [we] felt we pushed ourselves out of our comfort zone in the areas of technology use as well as student inquiry and collaboration.

"I was able to work with parents as well as learn from them."

Parent

Teachers

...teachers,

"The learning partnerships quadrant is a strength for us. What we've seen is that whether it's bringing in parents and kids as partners or bringing in experts from the community, there's a lot of fertile ground in that one quadrant of the framework."

Cluster Leader

Student Performance

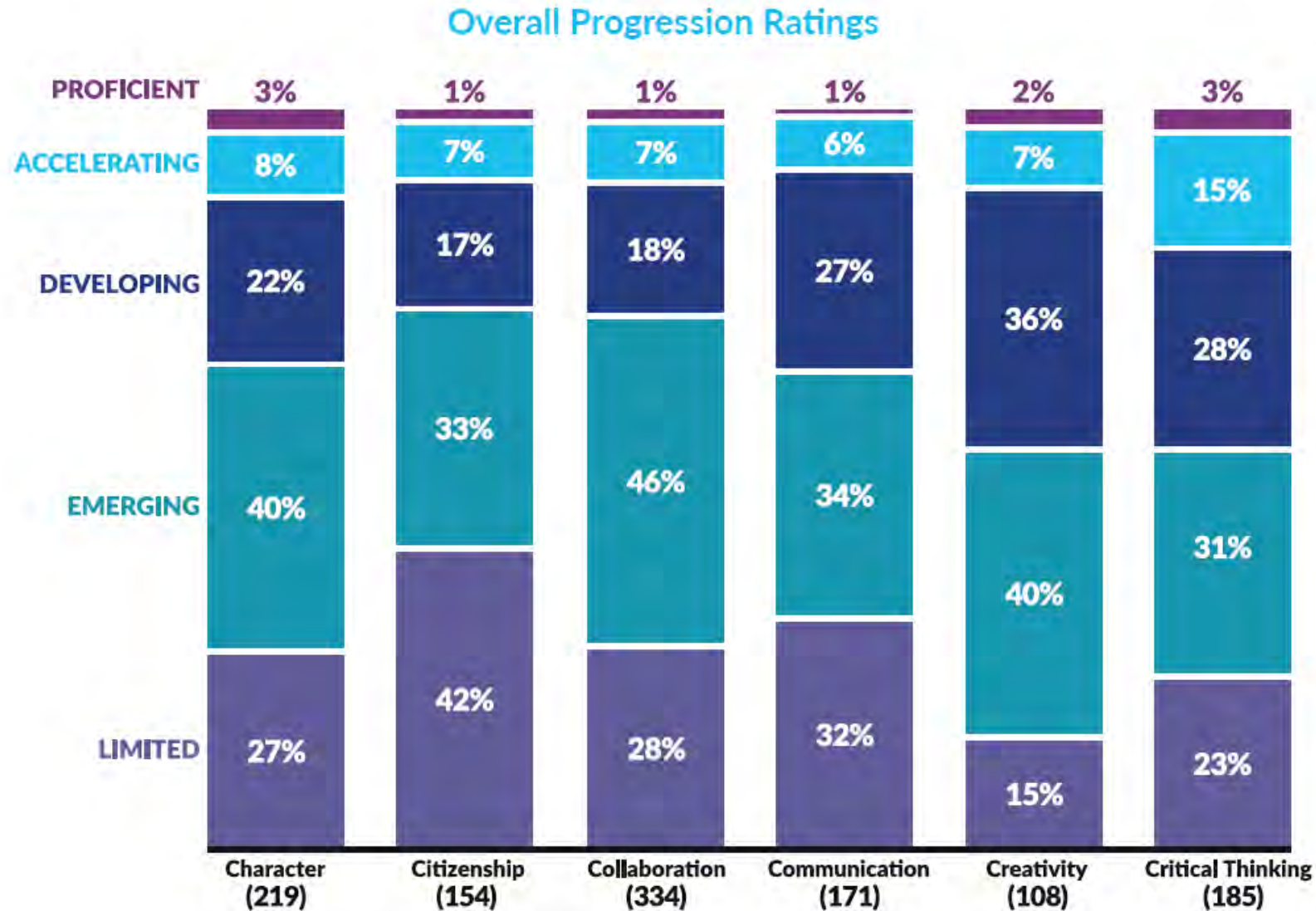


Figure 2: Baseline overall ratings for each of the 6Cs at each level of the Progression.

Our Equity Hypothesis

- Deep Learning connects learners to their real world.
- It helps build new and stronger relationships with all learners.
- Through inquiry it builds skills, knowledge, self-confidence, and self – efficacy.
- Deep Learning increases self and other expectations.
- Deep Learning feeds a desire among most children to contribute to the common good (which we call helping humanity.)
- Deep Learning creates citizens of today for tomorrow.

Michael Fullan 2016

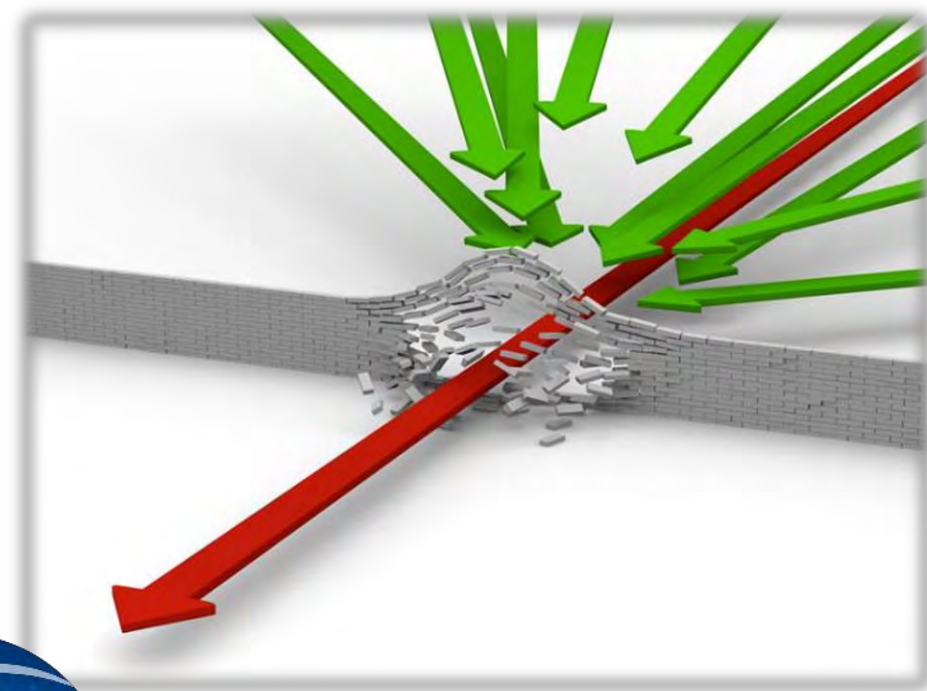


I hear a lot of 'I didn't know my students could do this' or 'I didn't know my child could do that.' [With NPDL] students get to be smart and good in different ways and traditional school doesn't always provide them with those opportunities. NPDL gives all kids the chance to be amazing and show the gifts they bring. The way we view our students is changing along with the opportunities we give them to be great.

Cluster Leader



- What has become **clear** for you?
- What **questions** do you have?
- How might NPD L help you **accelerate** and **amplify** your goals?



Resources and information:
NPDG Global Report (*download*):
bit.ly/NPDGglobalreport16
and
www.npdg.global



Deep Learning™
Helping Humanity Change the World



JOIN THE MOVEMENT
Kids Can't Wait!