Remote to Hybrid Learning

A POSITION PAPER ON A PARADIGM SHIFT FOR EDUCATION

Education Reimagined:

The Future of Learning

Microsoft

New Pedagogies for Deep Learning™
A GLOBAL PARTNERSHIP

The fallout of COVID-19, continuing advances in digital technology, and intensifying pent-up demand for student centered learning have combined to present an unprecedented opportunity to transform education across whole systems.

We have been impressed by the tireless action to address the emergency needs of students and families. We are deeply encouraged by the growing desire to seize the opportunity to focus on the deep purpose of education through the twin pillars of well-being and learning. Learning for all will spark a new interest and commitment to equity, where diverse students will be drawn to Global Competencies (such as our 6Cs), learning more about their worlds as they commit to building a better future for themselves and humanity.

This powerful shift to a learner-centered system will be amplified by technology and driven by education that is steeped in purpose and meaning. We are excited to join Microsoft to help accelerate this development.

Michael Fullan and **Joanne Quinn**
Global Directors, **New Pedagogies for Deep Learning**
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Over the last few months, system leaders, educators, students, and families across the globe have demonstrated incredible energy, commitment, and flexibility as they quickly responded to the need to move to remote learning.

During this shift, technology has played a critical role in enabling students to stay connected, engaged, and motivated. Teachers around the world are continuing the learning journey for their classes by integrating video, game-based learning, and powerful collaboration tools into their virtual lessons, and students are experiencing a new type of learning, which will have an important, lasting impact. Institutional leaders have told us that going online was about more than remote instruction – it was about implementing solutions that would keep departments running smoothly and evolve with the changing needs of students and staff. Even with all the incredible fast work, administrators and leaders acknowledge they are navigating unchartered territory, and there is more to be done to ensure all students can participate.

As we look to the next school year and beyond, system leaders, educators, faculty, students, and families will apply what they've learned throughout the process, and work together to plan and shape the future of education.

This paper, created in collaboration with global visionaries from New Pedagogies for Deep Learning, explores the now, the near, and the next in the changing landscape of education. We hope you will find this contribution to the existing conversation about the shift from traditional to remote to new hybrid learning approaches valuable in your return-to-school planning, and beyond.

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Education Reimagined: The Future of Learning

The pandemic has disturbed all sectors of society and revealed its fault lines—especially in our education systems. The reaction to the crisis has generated some impressive responses on the part of individuals and small groups as educators have stepped up to serve their communities. In some cases, public and private partnerships have filled the gaps. Some systems have been able to rapidly deliver remote learning experiences, but most have struggled with meeting the needs of all. Equity, access and capacity left wanting. Prior to the pandemic, many education systems were stalled, the pandemic exposed the case that fundamental changes are needed.

Through this disruption, there has been a recognition that schools play a vital role beyond learning. Their custodial and community roles are central to a healthy society. As we grapple with the issues of reopening schools in this uncertain time, we must seize the opportunity to reflect on what has been learned, and what matters most.

The challenges highlighted during the disruption should not come as a surprise. Over the last decade, student engagement has plummeted.[1] Students' sense of hope has declined.[2] Almost one in every five students does not reach a basic minimum level of skills to function in today's society. Moreover, many school systems have not maintained pace with technological advances; schools have not provided widespread access to digital tools. When the pandemic hit, 1 in 5 students did not have access to the internet or a device to support them in lockdown.[3] This disruption revealed systems that were seriously unprepared to support all learners. To put it plainly: it's time to situate education as an instrument of individual and societal good.

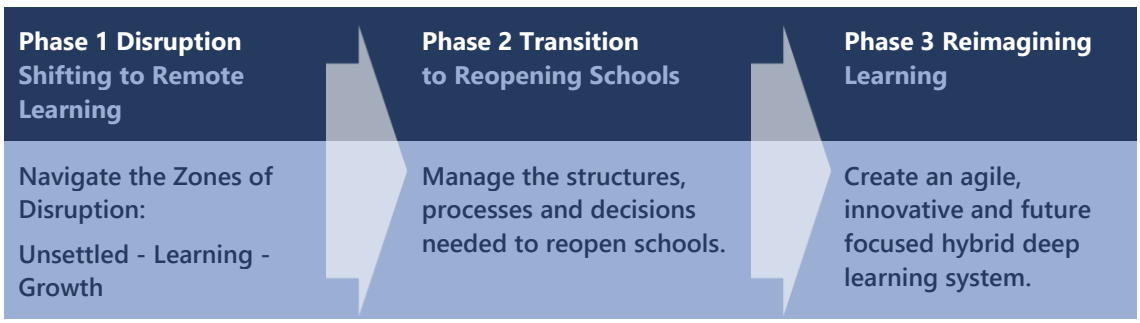
How will we choose to respond? Will we patch together a reaction, or use this opportunity to transform the system itself? The question becomes, what will be more appealing - reverting to the status quo or using the opportunity to help students become knowledgeable and skilled change makers through deeper learning? We argue that the solutions lie before us. We have the opportunity to creatively manage the immediate issues while building a bridge to a reimagined education system.

We outline this strategy in three Phases.

Phase 1 Disruption identifies initial responses and the lessons learned during the first months of the pandemic.

Phase 2 Transition outlines how to navigate planning for reopening, when the pandemic is still creating uncertainty.

Phase 3 Reimagining lays out a vision for an educational approach that enables all students to thrive and prepares them with skills to navigate ambiguity and change. This phase draws from the best of traditional approaches, innovative practices, and insights from remote learning to shape new, flexible, agile hybrid learning models.



In each of these three phases, we emphasize how new approaches would enable well-being, equity and quality (deep) learning to flourish. In order to realize such improvement, it is imperative to embrace an innovative mindset. We will need to be open to rethinking and creating a powerful new future that meets everyone's needs.

Phase 1 Disruption: Shifting to Remote Learning

Navigating the Disruption

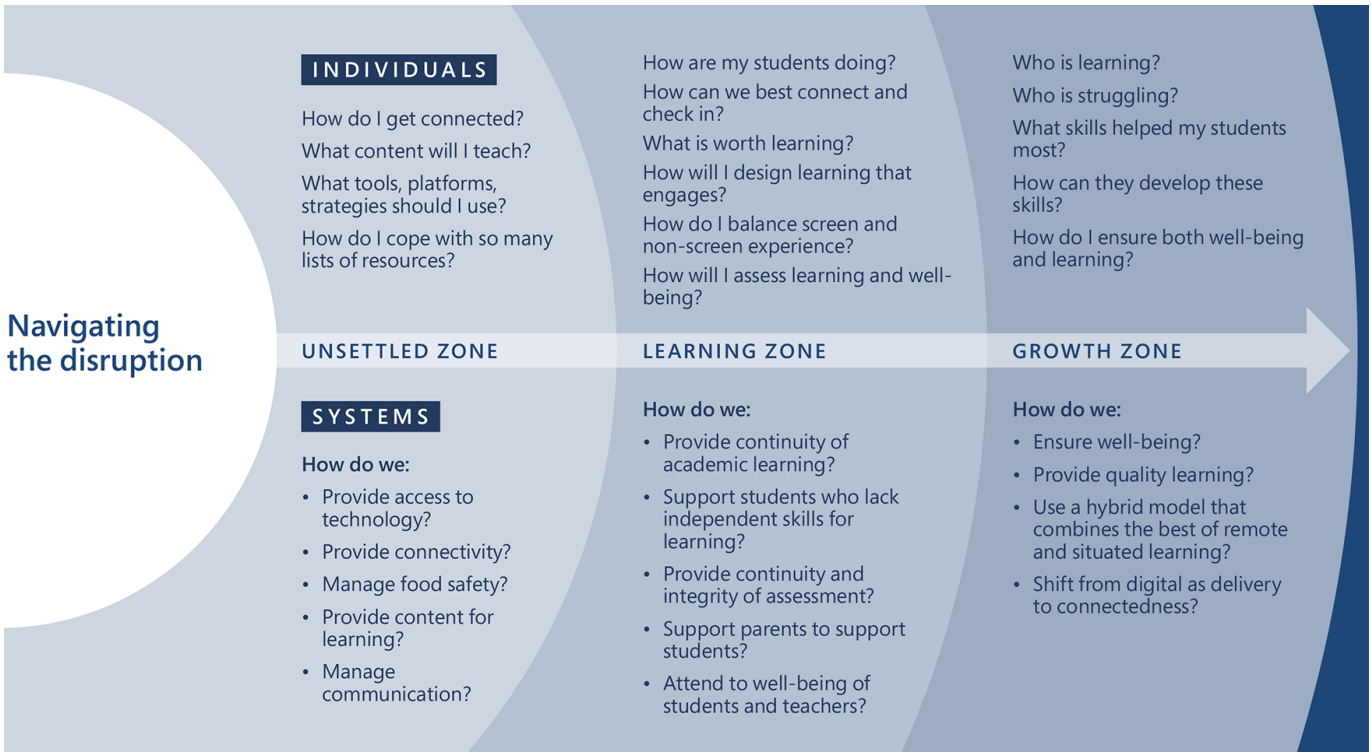
Not everyone or every system had the same experience in facing this abrupt change. Some systems had stronger collaboration and technology infrastructure which assisted them in a more rapid response while others were struggling to find the right pathway.

> *Our success was driven by our people being ready to be adaptive, innovative in the context that we're in… This Covid 19 moment's an unfortunate situation, but the good news is our educators and staff had built their capacity and continued to be adaptable.*
>
> **Phil Neufeld,** Fresno Unified School District, California

When we examined the ways that systems responded to this global emergency, we identified three zones that both individuals and systems experienced as they navigated the Disruption Phase. We named these: The **Unsettled Zone**, **The Learning Zone** and **The Growth Zone**. The zones are not finite, or discrete and may not be sequential. The Learning Zone provides insights about how to move forward during disruption. The Growth Zone involves ideas about how to approach the Transition phase of reopening schools. These phases describe the focus and responses to the crisis as it initially evolves.

As circumstances change, individuals, schools and systems may move back and forth through the zones as they build expertise and the situation changes. The power of the zones metaphor is to provide a lens for individuals and systems to recognize where they are functioning and then take action.

Figure 1. Navigating the Disruption[4]



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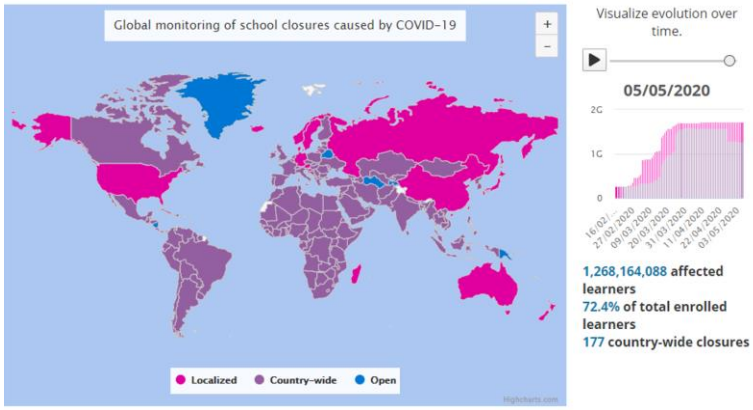
The Unsettled Zone

In the **Unsettled zone**, the shock and immensity of the change may be overwhelming. Emotions run high and responses focus on solving the immediate structural and procedural issues. A rapid response is essential in providing meals, getting devices delivered and building connectivity in underserved areas. In terms of pedagogy, learning on-line in the unsettled zone looks more like traditional teacher centered, content-driven practice.

Figure 2. Global monitoring of school closures caused by COVID-19



At the pandemic's peak 1.6 billion students were out of school.[5] This move was abrupt and unprecedented, leaving policy makers and practitioners scrambling to provide a safe and expedient way to provide learning at home. Remote learning became the quick fix. The lack of access and connectivity meant that students would be denied schooling for weeks of shut down.

For example, according to PISA, slightly more than two-thirds of 15-year-old students in OECD countries were enrolled in schools where digital devices had sufficient computing capacity. And on average, not even half of 15-year-olds were in schools with an effective online learning support platform. In those schools, most principals considered their teachers to have the necessary technical and pedagogical skills to integrate digital devices in instruction.[6]

Some systems with experience in designing and delivering online learning made the transition to remote learning with limited disruption. Many worked quickly to provide lessons via tv, radio or by making available paper-based packets of learning materials. The technology and communications sectors rapidly reprioritized and provided support to the education sector; some districts redirected resources to acquire and distribute devices, especially to those who needed them. In some cases, mobile buses circled through needy neighborhoods to provide Wi-Fi to students who lacked connectivity.

Aside from the widespread technological deficits that hampered learning for all, this period also revealed that digital alone could not replace the social and pedagogical impact of teachers. Parents recognized that the craft of teaching is not as simple as it appears. Teachers also play a vital role as relationship builders and connectors. It is believed that during the pandemic, loneliness and depression increased among youth. In response, teachers embraced technology to reach out to students and families.

> *As the world faces this unparalleled challenge, the critical role that schools play in supporting the health and wellbeing of learners, and indeed the whole school community, through school health and wellbeing programs, has become more appreciated than ever.*[7]

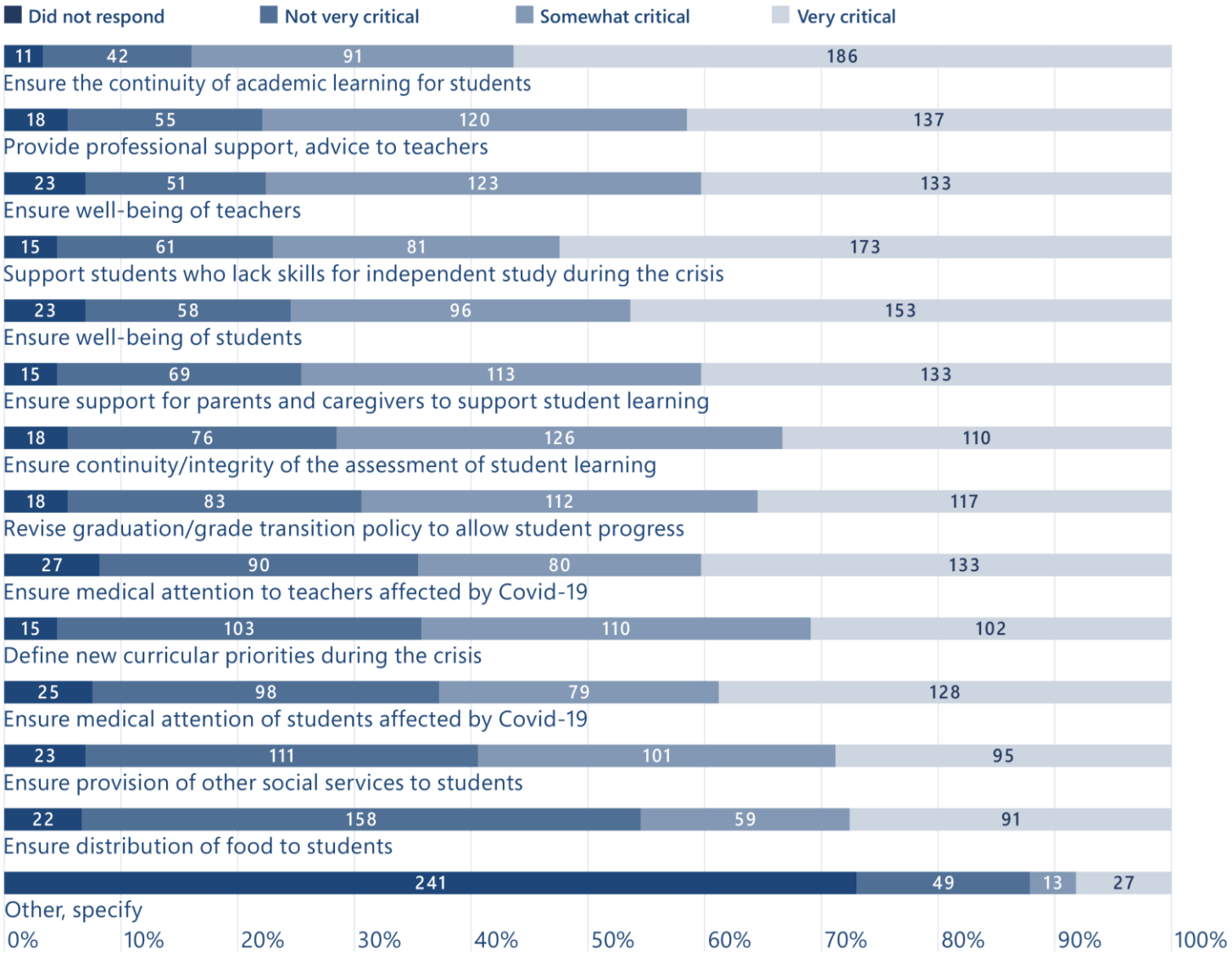
The Learning Zone

When in the **Learning Zone**, and initial procedures are in place, systems begin to assess and address well-being and equity issues. They also start to consider multiple factors and the opportunity to reflect on the possibility to shift from surviving to navigating the new remote environment.

This shift in focus is evident in OECD's *A framework to guide an education response to the COVID-19 Pandemic of 2020*, which includes responses from 98 countries.[8] The report reveals some of the priority considerations and responses made as systems sought to build a 'new normal'. The issues identified as very challenging by most respondents were:

- ensuring the continuity of academic learning for students,
- supporting the students who lack skills for independent study,
- ensuring continuity and integrity of the assessment of student learning,
- ensuring support for parents so they can support student learning, and
- ensuring the well-being of students and of teachers.

Figure 3: How critical are the following education priorities in response to the crisis?

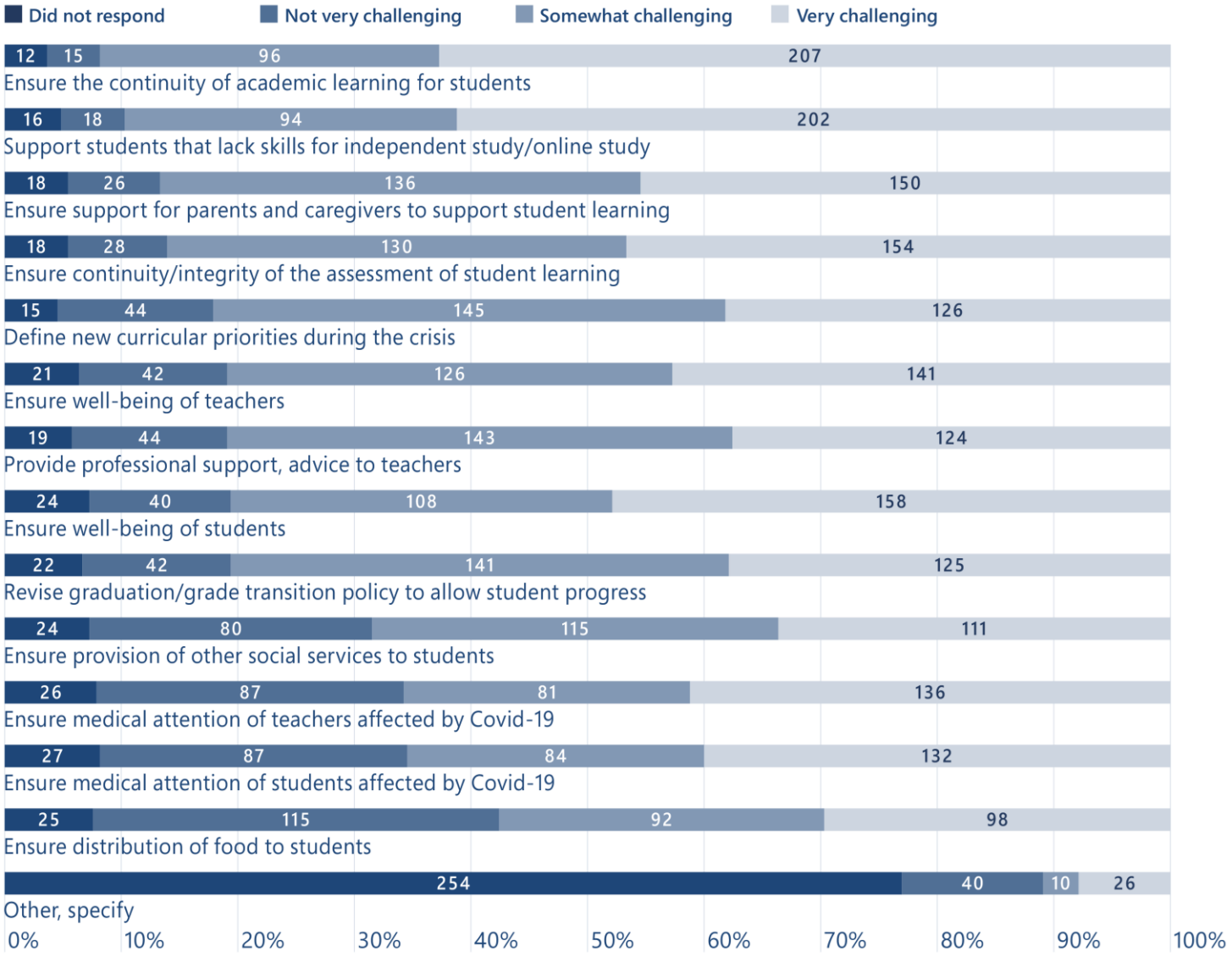


Source: Global Education Innovation Initiative at Harvard and OECD Rapid Assessment of COVID-19 Education Response. March 18-27, 2020

As well, educators and policymakers recognized that these issues would not be easily resolved. Barriers included:

- availability of technological infrastructure,
- addressing student emotional well-being,
- addressing the right balance between digital and screen free activities and
- managing the technological infrastructure.

Figure 4: How challenging would it be to address the following priorities?



Source: Global Education Innovation Initiative at Harvard and OECD Rapid Assessment of COVID-19 Education Response. March 18-27, 2020

The COVID crisis elevated the importance of digital. However, the most agile schools and districts have been able to move beyond simply elevated digital importance, to elevated impact.

In Hong Kong, the English Schools Foundation (ESF) had a vision of the deep learner and a strong technology platform. Their learning, as they moved through the disruption, was that the quality of learning was not dependent on digital being the medium but on "HOW" the use of digital shifted from a simple delivery system to a robust mechanism for culture building and social connectedness.

"Our a-ha moment was as we moved from treading water to starting to swim; technology was more than a delivery mechanism. It enabled collaboration, communication and connection."

Teachers who embraced those uses of digital saw more powerful learning and artifacts of learning from their students." Trish Oliver, ESF

The Growth Zone

Once processes become stabilized some systems are ready to move to the Growth Zone. Systems take the opportunity to reflect more deeply on what is being learned during the disruption and capture those insights to develop learning models once the current restrictions are relaxed. The Growth Zone represents the beginning of the transformation that we discuss in Phase Three: Reimagining Education.

In the Growth Zone, systems recognize that they are no longer working on a temporary or stop-gap solution. Until treatment, vaccines and large-scale testing are available to all, the delivery of education in both physical and on-line settings is essential. It becomes clear that technology is a crucial part of the solution during the disruption. What emerges is a recognition that it is time to move beyond a blend of traditional teaching & online instruction, both happening within brick & mortar, to something more.

The hybrid model combines the best of in-school and remote learning, with digital engagement. It is more than a quick fix. It is a way to enhance and accelerate learning by providing student centered approaches to meet diverse learners needs.

Moving beyond the growth zone poses additional issues that will require innovation to plan for the reopening of schools, and agility to respond to resurgence. Health and safety, wellbeing, quality learning, equity, technology and capacity will all become priority issues.

Teachers and leaders who were able to move through the Growth Zone reported some important learnings. What they discovered was so powerful that they did not want to slip back to the status quo:

- Acknowledgement that well-being was a critical pre-condition for learning
- Technology shifted from being a vehicle for delivery/ transmission to a mechanism for collaboration, social connectedness and culture building
- Self-regulation and learning to learn were key determinants of student motivation, engagement and success
- Students who found themselves with more choice and voice exceeded expectations finding ways to help themselves and collaborate with others.
- Collaboration among teachers and leaders emerged because the focus was clear
- In the absence of high stakes testing, systems relied on teacher and leader professional judgements

As systems navigated the three zones of Disruption, some systems went into survival mode while others gained significant insights about their systems, students and teachers. Those who took the time to reflect on what was learned about equity, wellbeing and learning, began to innovate and see the transition to reopening as a bridge to revitalizing education. Many noted technology was a critical enabler for learning during the Disruption phase and should also play a crucial role in moving towards quality learning in a hybrid model.

As we move to Phase Two, the Transition Phase, we consider how to reopen schools with quality learning, well-being and equity in mind. With the right approach, the Transition phase can address short term necessities while starting down the pathway of what could be profound re-purposing towards individual and societal good.

Phase 2 Transition: Reopening Schools

The challenge to reopen schools is complex. The realities of meeting health and safety needs while also addressing those who are underserved and marginalized as a result of economic collapse seem to be more than enough to manage. Add into the mix, the priority of regenerating a stalled learning system, and the task seems impossible. In this section, we attempt to break this process into manageable, practical chunks.

There is no blueprint for re-opening schools during an unpredictable pandemic. Whether in schools, districts or at policy level, you will be adapting constantly to respond to three interconnected issues:

- **Well-being**
- **Quality learning**
- **Safety and operations**

However, before delving into those three issues, bear in mind that this complex change will require leaders to exert contextual and emotional intelligence across all three interconnected issues.

Be Mindful of Well-being

Whether managing operations or addressing the learning program, leaders will need to remember that this period represents profound change and loss for adults and children alike. Considerations must include the impacts of a weakened economy, food insecurity, widespread unemployment, housing instability, increased mobility, increased abuse and addiction, while working within an overwhelmed health and social service. We cannot underestimate how these factors have shaken those living through the disruption. Rushing to re-open without addressing trauma and well-being needs further exacerbates an already strained situation.

We know that change affects everyone differently. Consider these realities when re-opening schools:

- **Each of us has been affected in unknown ways. This self-awareness will come at different times for different people and will manifest itself differently for each of us.**
- **Assume people are not their best selves right now. Temper your expectations with empathy and patience**
- **We won't know what people need, until we ask them. Even then, they may not understand what they need. Know that one size does not fit all.**
- **The situation will continue to be dynamic and so are the people we serve; their well-being is not in a fixed state.**

Reflect on Lessons Learned

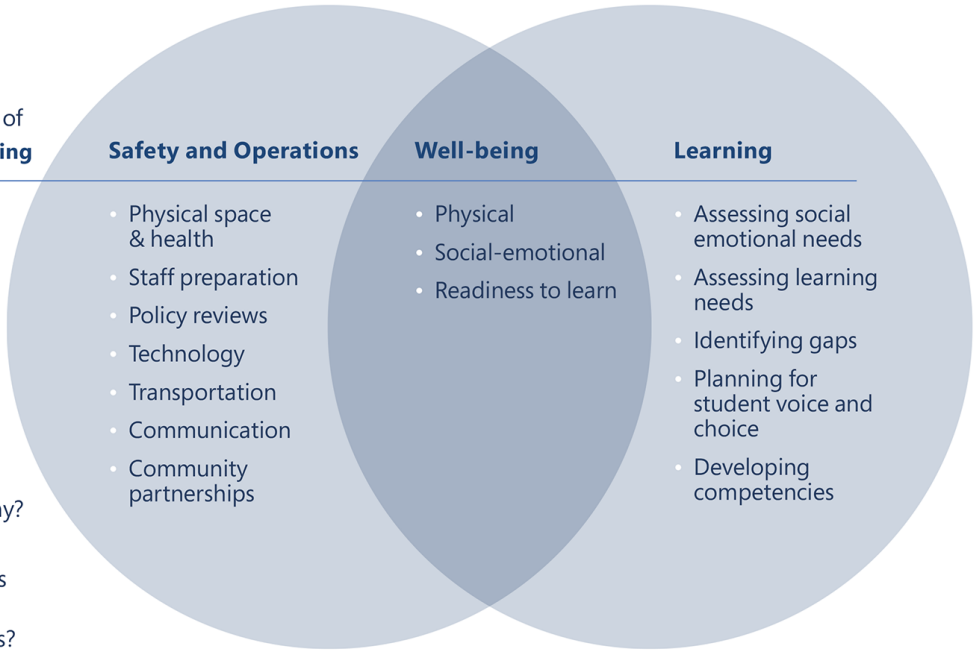
As systems prepare for reopening, we recommend that school and district groups engage in a reflective process to identify strengths, needs and system gaps. This will allow them to design structures, processes, and policies to support learning and the community they serve. Using prompts like the ones below can surface essential information to support planning. Using the lenses of equity, wellbeing and quality learning can help to focus the investigation of root causes.

Figure 5. Reflection Protocol: What has been revealed during remote learning?

Reflection Process

Decisions filtered through the lenses of **Equity, Well-being, & Quality Learning**

1. How are we doing? Students, teachers, leaders, families
2. What did we learn about our students?
3. What did we learn about our parents/families?
4. What did we learn about our systems?
5. Who has learned well during this phase? Why?
6. Who struggled the most? And why?
7. What learning gaps exist?
8. What skills most enabled students during this time?
9. What skills most enabled teachers?
10. How did technology help/hinder?
11. What were the bright spots?
12. What communications worked best?



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The reflective prompts serve to identify issues and opportunities during the transition and beyond. With equity, wellbeing and quality learning prioritized, the system gaps will be noticed and addressed. For example, when we ask, "Who struggled the most?" Subgroups such as: vulnerable students, migrant students, special needs students may be identified. We recommend that beyond identifying those groups, you push to understand why they are vulnerable. Asking "why" illuminates a range of different causes, including deficiencies within our own systems. Only when we understand our deficiencies, can we begin to transform them.

Here are some more examples:

- ***We found that 40% migrant students did not log on.*** Why? The issue may have been *equity* as they may not have had access to digital tools or connectivity, *or* it may be *well-being* was the determinant as they did not have the basic necessities of life. The equity lens may lead to support structures of connectivity and devices, but the *well-being* lens will require social services.
- ***We found that 55% of students with identified special needs did not complete the work.*** Why? We might focus on the *quality of learning* impacting engagement or the lack of independent learning skills or confidence. If we ask the why question a second time – why they were not engaged we may be led to consider the content chunking, the learning design or the support structures that were not in place.

Identifying trends and then asking why can reveal critical steps to take next. Use the reflective prompts before school resumes to understand the deep underlying issues and avoid superficial solutions that may further compromise a fragile situation.

Manage Safety and operations

This paper does not allow us to describe the countless issues involved in reopening schools and school systems, but we offer the **Reopening Schools Tool (Appendix 1)** to assist you to build a plan tailored to your specific context. The prompts will guide you to assess structures, processes and policies to design a comprehensive and flexible plan that deals with the safety and operational issues but ensures that learning, equity and well-being are addressed.

Lead the Learning Agenda

There may be a tendency to overlook the learning agenda and become preoccupied with health and safety. We do this at our peril. It is essential to consider ways to improve learning early in the Transition Phase. Before focusing on delivering content, there are a number of considerations that should be made to enable and enhance learning during this Transition time.

There is a Pandemic axiom that has made its rounds on social media: Think Maslow before Bloom. We must reopen schools with the assumption that many kids have felt socially isolated. Many have felt lonely as they have been away from friends for months. Most report that they are longing for connection. We do not know how peer relationships have continued on-line, whether they have stalled or even fractured.

Teachers can ease the social pathway by:

- facilitating connection and conversation
- re-creating norms that will allow students to feel psychologically safe in an optimistic and efficacious learning environment
- Inviting each student's perspective by asking open questions so that each student feels connected to the learning community
- Providing Trauma-informed learning for staff, parents and students, enabling everyone in the school community to recognize and respond mindfully during this unusual situation
- Appoint a caring adult to build a relationship for those students you know to be vulnerable

Learners will not learn when they are uncomfortable or contribute when they are self-conscious. As we know, "Emotion is the gatekeeper of motivation, cognition and attention."[9] Therefore, establishing an environment that focuses on well-being and belonging for all is job one for teachers. In short, well-being and quality learning are intimately related.

Know that learners will have different needs when they return to school than when the class was last together. Your assumptions about what they need may not be accurate. Many may have learning gaps and others will have emerging stressors that will affect their ability to engage cognitively. Still others may have grown in ways we could not have foreseen. Assessment practices that prioritize emotional well-being is what is needed during school reopening. Some recommendations include:

- Be cautious of using diagnostic quizzes and high stakes evaluation that will heighten the stress for some learners and therefore will not provide meaningful or accurate direction for the teacher
- Consider formative, low-threat assessments-for-learning to reveal students' strengths and needs
- Facilitate interviews that invite student and family perspectives. These richer strategies will engage student voices positively and uncover unanticipated insights

Also consider that for several months many students have enjoyed autonomy at home. Many have had the latitude to choose when to learn, when to move around and how to manage their own time. Some have pursued their own interests through play. Others have chosen to opt out of learning entirely. Educators would be wise to examine their own practices that can extend flexibility, choice and voice to students. Simple ways to do this are to:

- Invite students to share the positive insights emerging from the Pandemic. What did they learn? What did they learn about themselves? What are they grateful for?
- "De-front" the classroom by taking the emphasis from the teacher and placing it on students
- Promote collaboration among students. When students work in groups, there is flexibility, more voices engage, and smaller children can wiggle around as needed
- Incorporate choice into assignments and classroom activities
- Arrange the classroom to support student movement
- Create a discrete way for students to share vulnerabilities or concerns
- Enable students to make suggestions about what and how to learn

Given the dynamic nature of the pandemic, we may need to anticipate fluctuating attendance. Most teachers feel confident teaching students in the traditional face-to-face classroom. However, quality teaching with well-being and equity in mind, while some students are present and others are at home, will leave most teachers de-skilled and unsure. What we learned in the Disruption phase was that traditional pedagogy does not transfer flawlessly to digital. Now is the time to expose teachers to learning how to engage students while on-line and how to facilitate open-ended learning to foster curiosity, creativity and collaboration.

Ironically, this Transition period may provide the momentum we need to transform the education system. Now is the time to interrupt practices and beliefs that marginalize students. There will never be a convenient time to address the deficiencies that have plagued education systems for centuries. And, despite the long logistical to-do list that re-opening will demand, rethinking learning and attending to well-being must also be prioritized. If stakeholders (students, staff and parents) return to the familiar school setting, yearning for "normal," they will be determined to recreate the past. The status quo has a gravitational pull that works against change. If we are leaving the past behind, we ought to be clear about what we want for our future. What that future looks like and why it's worth it, is where we turn our attention to next.

Phase 3 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 along the following dimensions:

- Connecting to purpose and meaning
- Challenging students to have high expectations
- Positioning learning goals that focus beyond the basics
- Using engaging pedagogies
- Building relationships and belongingness
- Providing opportunities to contribute to the world

We see glimpses of this potentially powerful reform across the globe and indeed some strong examples in our global network: New Pedagogies for Deep Learning (NPDL). This combination of readiness for change and urgency arising from the current crisis has the potential to shift the education system from one of outdated "schooling" to future focused 'learning" and take learning out of the classroom and into the world.

Alpine School District in Utah, USA responded with agility, moving to full hybrid learning for 85k students within 1 week. Three conditions enabled the swift response:

- They had a critically clear vision for deep learning
- Their existing platforms were well utilized and familiar
- They had invested in capacity building

Their success was tied most importantly to the first point – a vision of the future focused learner.

Digital alone was not the driver. Alpine simultaneously embraced 3 other key learning design elements: Learning Partnerships, Learning Environments and Pedagogical Practices. All four elements had formed the backbone of learning design across the district for the previous 18 months. When the crisis hit, they were profoundly clear that these four elements, whilst necessarily looking contextually different, must continue to underpin quality learning. Inherent in these four elements are also the tenets of well-being and equity, embedded explicitly across the 6 Global Competencies.

Reflect and Reimagine

This pandemic has magnified the question of what kind of learning is required in 2020 and beyond. To reimagine learning we need to reflect on what we know about learning, our students, the new role of technology and the complexity of an unknown future. Six key questions can foster deep reflection and be used to engage all who need to be part of the solution- students, parents and families, educators, and community partners. What is crucial is to take this opportunity to ask the tough questions of your system, discuss possibilities and take action for a new and better future.

1. What knowledge, skills and attributes do our students need to thrive in this complex world?
2. What kind of learning is needed for this current and future complexity?
3. How do we ensure equity?
4. How do we attend to well-being?
5. What have we learned from remote learning?
6. How can technology be best leveraged for learning in the future?

The prevailing model of schooling was built on two organizing (and confining) constructs: time (when kids learned) and space (where they learned). These two constructs were useful in the 1800 and 1900's but the COVID disruption has rendered them redundant. Students can learn and demonstrate this learning without bricks and mortar or bell times. With digital and deep learning, students can learn where they are. Students can learn when they are ready.

"My observations would be that students naturally gravitated to human connections and desire to help others during the pandemic. The removal of traditional school hours and schedules provided more opportunity for them to focus on their own passions and for many, that included finding ways to help others in their family or community."

Tom D'Amico, Associate Director, Ottawa Catholic School Board

For decades the literature has been flooded with discussion of future ready skills, including the higher cognitive, social emotional, and technical skills and attributes needed in a complex digital world. This kind of learning changes the learner's perspective, behaviors, and develops skills for life. It leaves the learner wanting to learn more. We know one thing for sure. The absolute key to doing this is to cultivate the intrinsic motivation of students to learn, individually and together. The essence of this powerful learning is fostered by a student's sense of purpose, meaning, belongingness and desire to make a contribution to society. Ignoring these essential goals is a profound weakness in many education systems.

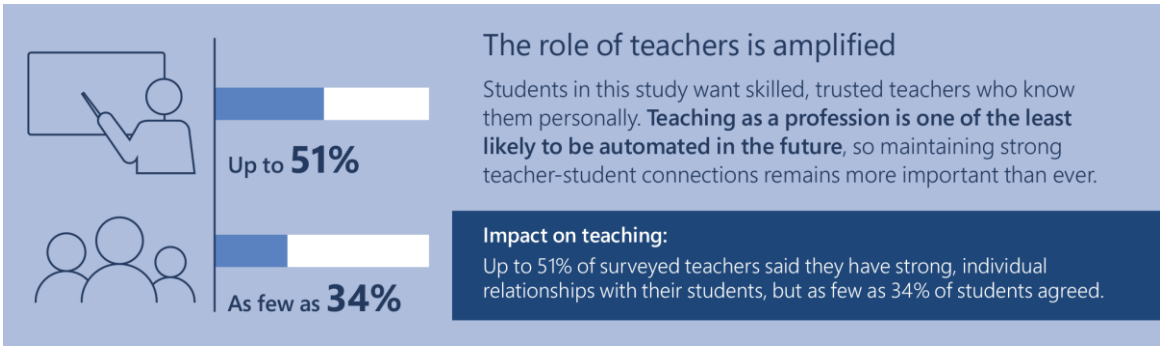
Students who thrived in the remote environment during the pandemic, demonstrated competencies such as critical thinking, creativity, resilience, independence as learners, self-regulation, cognitive flexibility and perseverance. These are the attributes that are noted as critical for future employability across industries and geographies.[10] Going forward the learning process must foster these competencies through authentic, relevant learning that provides voice, choice and agency to learners. This necessitates a new role for teachers; one in which they are activators of learning; practitioners who can differentiate task, time and space to meet student needs and include them as co-designers of that learning. The challenge is to integrate the best of what we have learned from this remote phase with the new skill set required for the future.

Two major reports capture similar findings.

In The Class of 2030 and the Life-Ready Learning report,[11] students were clear, they did not want to be taught by a 'computer'—they valued the relationship they had with teachers who knew them and how they learn best. Teacher-student relationships remain key to success. Education reimagined must not be an agenda of students 'learning on their own"; Learning Partnerships and Environments remain essential elements of a future focused learning model.

Figure 6. Students want personalization, not automation

Figure 7. Role of teachers is amplified



The findings from the Education Endowment Foundation (EEF) Distance Learning Rapid Evidence Assessment[12] further indicate the most powerful teaching practices used worldwide to support and improve learning for students who are not able to attend classrooms are that:

- Teaching quality is more important than how lessons are delivered
- Peer interactions can provide motivation and improve learning outcomes
- Supporting pupils to work independently can improve learning outcomes
- Different approaches to remote learning suit different tasks and types of content
- Ensuring access to technology is key, particularly for disadvantaged learners

Create a Preferred Future: No more random acts of learning

Disruption has triggered the potential energy for change that has been unactioned in many systems. What is now needed is a model that integrates the best of remote-learning and school-situated learning, a new hybrid model.

This hybrid model must embrace digital to amplify, accelerate and connect learners and learning, while intentionally focusing on global competencies as well as academic standards.

We believe that re-examining how equity is being addressed should be of the highest priority. We have experienced in our NPDL work that deep learning is good for all, but is especially effective for engaging previously disconnected children and youth. Few things would be more powerful arising out of COVID 19 than new learning that explicitly benefits those previously underserved.

Deep Learning experiences are those that produce learning that sticks for life. They are both profoundly personalized and student centered and are intrinsically motivating for students as they pursue topics that are of real interest to them, have authentic meaning, and are more rigorous. These learning experiences make students want to persist and to succeed. This combination of autonomy, belonging, and meaningful work inspires students.

When students are invited to demonstrate their learning differently, and when learning environments include all students as contributors and change agents, they begin to develop a sense of efficacy. Relationships and engagement—the gatekeepers of learning—are emphasized in this learner-centered model. Voice, choice and agency are central to deep learning.

Deep Learning provides the foundation for a new hybrid learning environment. This new hybrid model fosters the best of remote and in-school learning and facilitates the shift to a learner centered model. Studies suggest[13] that combining face-to-face and remote learning, may be as effective as classroom learning when important design factors include engaging content, opportunities for interaction with teachers and peers, and support for learners. We know that peer interaction is important for learning and have seen the power of collaborative platforms to connect students across time and space. Connectedness and belonging can be supported though emotional check-ins built into digital learning environments. Engagement is a key determinant of learning and can be amplified through Virtual Real-Life experiences; museum and gallery tours, simulations and sandbox environments where students explore and create across time and space with experts and partners. Artificial Intelligence can offer translation, transcription, presentation, feedback and peer and self-assessment tools.

Figure 8. Traditional Vs Deep Learning[14]

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

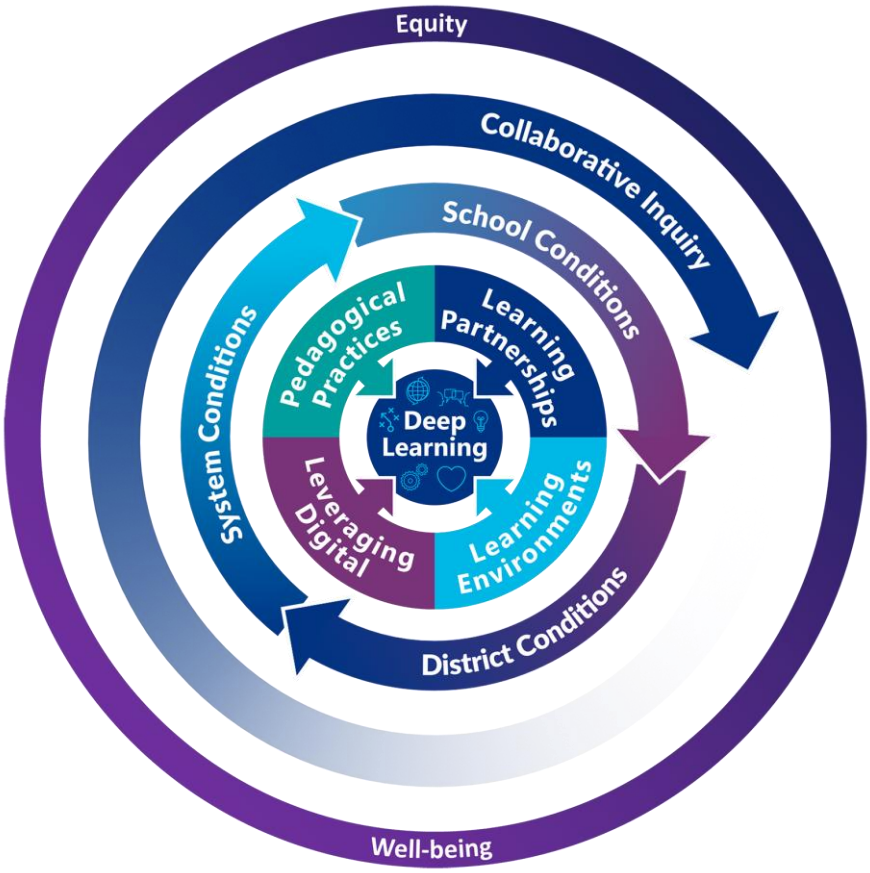
These new skills and attributes, together with a learning process that integrates the best of remote and in school learning with digital engagement drives deep learning and puts equity and learning for ALL front and center.

The Deep Learning Framework

Reimagining learning means rethinking what's important to learn, how learning is fostered, where learning occurs and what outcomes are measured. For the past six years, NPDL, in partnership with schools and systems in a network across 8 countries (Australia, Canada, Finland, Hong Kong, Netherlands, New Zealand, USA, and Uruguay) has developed and tested a Deep Learning framework that provides a comprehensive solution to reimagining learning.

The Deep learning framework (Figure 9) includes a set of measurement tools and a collaborative planning process that enables schools, districts and systems to shift practice.

Figure 9. Deep Learning Framework[15]



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Layer 1
Global Competencies at the center provide clarity about what it means to be a Deep Learner.

Layer 2
Four Elements of Learning Design provide a process that makes it easy for teachers, students, leaders, and families to shift their thinking and practices.

Layer 3
Conditions for mobilizing Deep Learning describe the conditions needed at each level— school, district/
municipality, and system—to foster innovation, growth, and a culture of learning.

Layer 4
Collaborative inquiry surrounds each layer—a process for continuous improvement.

Profile the Deep Learner: Six Global Competencies

The first step in making this new paradigm a reality is to identify the skills, knowledge and attributes needed by learners so we can be intentional in fostering them. The **Six Global Competencies** (6Cs) describe in detail the skills and attributes needed for learners to flourish as citizens of the world. In our definition, Deep Learning is the process of acquiring these six Competencies: Character, Citizenship, Collaboration, Communication, Creativity and Critical Thinking.[16] When learners are immersed in the 6Cs, they learn *more* than content, and this learning contributes to their own futures and often to the betterment of their communities and beyond. Learning Progressions for each of the competencies provide a clarity that then allows teachers to design learning experiences explicitly focused on developing those competencies.

Use a Deep Learning Design Process

Changing classroom practice can be difficult so we identified four elements that work in concert to create the most powerful deep learning experiences to support the development of the 6 Global competencies. The four elements are:

- Learning Partnerships
- Learning Environments
- Leveraging Digital and
- Pedagogical Practices

Dramatically new learning relationships that shift voice, control, and interactions are emerging and are at the heart of Deep Learning. Students and teachers are partnering with one another and finding creative ways to partner with others across classes, schools, and countries, and with parents, experts, and the community. The new relationships have the potential to reframe learning by connecting learners to authentic opportunities locally, nationally, and globally.

Elevate the impact of technology

During the pandemic, the rapid shift to online learning revealed that old content on a new platform is still old content, and that using old pedagogies with new technologies did not necessarily enable powerful learning. Many of our global network partners used the four elements of learning design and the 6Cs as a framework to design remote learning. The disruption also forced us to reconsider how we nurtured partnerships and relationships in a digital environment so that students felt safe, connected and purposeful. Digital assumed a critical role, but it is the integration of the four learning design elements that enables a deeper learning process in both remote and face to face situations. Only when allied with learning partnerships, learning environments and powerful pedagogies, can digital move from having an elevated role to an indispensable impact on learning.

Connect Deep Learning Well-being and Equity

The deep learning approach is vital because it simultaneously develops the global competencies fostering well-being and increasing equity by leveling the playing field. A powerful differentiator of the NPDL work is that many Social Emotional Learning domains are embedded within the 6 global competencies and leadership tools. Thus, well-being and social emotional learning are addressed simultaneously with learning at all levels in a synergistic way.[17]

Build School and System conditions for Deep Learning

Many schools, even before the pandemic, could point with pride to classrooms where innovative practices engaged students in interactive learning experiences solving real life problems. However, the bigger challenge remains how to move this from a few bright spots of innovation to a pervasive shift in thinking and practices that impact all learners.

Changing practices requires a re-culturing for students, teachers, families and community not just changing structures and processes. The framework describes the conditions needed to mobilize Deep Learning exponentially across schools and districts including policies, practices, and actions.

Deep Learning takes our best selves—a hybrid of synchronous and asynchronous, virtual and bricks and mortar which explicitly embraces effective Pedagogies, Partnerships, Environments, and digital to allow ALL learners to access, understand, create, co-create and refine new knowledge. It is the cornerstone for a new educational paradigm and allows teachers and learners to pursue possibilities previously out of reach for all but a few learners.

Moving Forward

What does quality learning look like in the hybrid environment? Technology will be prominent in the service of the twin humanity pillars of well-being-and learning. In turn, well-being (mental and physical) and its associated relationships will be foundational to learning. Learning itself will cultivate and build on the sense of purpose of children and youth to contribute to a better world for themselves and others. Learners will be drawn to the global competencies such as the 6Cs, which will guide learning and encompass the basic skills of literacy and numeracy. The other disciplines will flourish as sources of human expression, creativity, exploration and development. Learning will become ubiquitous—any place any time. There will be a mix of individual, small group, and whole class engagement. Student led activities, expert engagement, and a blend of real-life and online learning will concur. Learning will happen at school, at home, in the community and beyond. Assessment of learning will change where the relative roles of artificial intelligence and human judgment will become clarified in terms of grading, commentary and feedback to enhance engagement and learning. Some extremely disadvantaged students initially will need specific support; the majority will become readily engaged in this new system. The neuroscience of new learning confirms the endless potential for better learning for everyone.

We have established the imperative for whole system change. The key question is how do systems transform? The pivotal question is whether seizing the opportunity to create a whole new powerful learning system is more appealing than slipping back into a status quo that does not work. Thomas Kuhn (1962) in *The structure of scientific revolutions*[18] concluded that fundamental changes in paradigms—models—require two conditions. The first condition is that the old model is palpably failing; the second condition requires that an alternative better model is available. Kuhn's major insight was that *both* conditions are required for any transformation. We certainly

have the first condition—a struggling education system—and have had it for some time without any real change. The second requirement—a viable alternative model—is in the making, especially in those schools and district that have been implementing deep learning systems over the past five years.

The pandemic, along with the severe challenges that require immediate attention, has also provided a vacuum where innovation can be tried, assessed and developed further. Our sense is that there are many people (students, teachers, parents and others) who see a dire need for improvement in learning systems and are willing to work toward that end. With the right combination of action positive system change could occur at a more rapid rate than at any time in the past century.

At this point the successes tend to be at the school and district levels. Over the past 5 years many policy entities and global bodies such as OECD have been expressing dissatisfaction with existing education systems. Andreas Schleicher (2018), Director of Skills for OECD concluded:

> **"Over the past decade, there has been virtually no improvement in the learning outcomes of students in the Western world, even though expenditures on schooling rose by almost 20% during this period" (p. 11).**[19]

Across the globe, there is a growing recognition at the policy level, of the need to revamp national systems relative to goals, curriculum, pedagogy, assessment, and the roles of teachers, students, and just about everyone who works with students. Put another way, there is a radical convergence that something is fundamentally wrong with education—a disquiet that is felt at both the policy and local level (which is not to say that there will be agreement about the solution). Second, progress in deep learning, especially at the school and district levels in some cases is causing further upward pressure for compatible policy change. Covid-19 ironically has upended the entire system in a way that opens up radical possibilities for transforming education—an opportunity of the century we would say!

The interwoven learning, well-being and equity agenda, and the corresponding system changes that will be required to enact it, is about the future of humanity itself.

It is crucial that we act now!

> **Yet, education does more than respond to a changing world. Education transforms the world. (Unesco)**[20]

Appendix 1: Reopening Schools Tool:

Comprehensive Operational Considerations for Leaders

Assessing Student Needs	
Develop a mechanism for regularly identifying, assessing and coordinating the school's response to student needs before re-opening. Conduct this process regularly due to fluid situation	☐
Determine who are known to be the most vulnerable students and where necessary co-develop an interim individualized education plan or school plan with all partners before school re-entry. Consider early re-entry to provide more intensive support and a smoother transition	☐
Identify students who may be at risk. Consider students with special education needs, those who are immigrants, disengaged students, students who have faced trauma, students of essential workers	☐
Reconfirm collection of student data as information may have changed. This includes home address and contact information. Include siblings and where they go to school	☐
Anticipate increased student mobility across communities and adapt intake practices so that students can be immediately accommodated into school and its programming. For continuity, make transportation and other arrangements so students can remain in current settings	☐
Invite vulnerable students to attend summer school or re-enter first to accommodate transition	☐
Begin to identify student leaders who can act as positive influencers during this time	☐
Preparing the Physical Space	☐
Seek permission to accommodate students in other spaces or arrange for portable classrooms when schools lack space to accommodate	☐
Make masks, tissue, hand sanitizers available at entrances to school building and in key places around the school	☐
Establish one-way hallways on larger more congested sites	☐
Optimize use of entry and exit points into the school building to disperse student movement in hallways while ensuring safety plans are not compromised	☐
Establish isolation spaces where students or staff can self-isolate if necessary	☐
Ensure teacher work rooms provide space for physical distancing	☐
Reconfigure large spaces (such as gyms, staff rooms and cafeterias) for larger classes	☐
Remove unnecessary furniture or supplies to optimize space/and reduce unnecessary touching in learning spaces	☐
Visually mark floor space so physical distancing is easy to follow (hallways, playgrounds, bus line ups, classrooms)	☐
Install visual reminders about hygiene and physical distancing at critical areas such as washrooms. Use multiple languages and graphics where necessary	☐
Install no touch taps and dryers in washrooms. Develop a system to reduce crowding in washrooms	☐
Adapt use of overcrowded changerooms	☐
Reconsider student use of lockers	☐
Close high touch spaces on playgrounds	☐

Ensure adequate air circulation in schools	☐
Shut off water fountains and ask students to provide reusable water bottles	☐
Prepare for lunch to be eaten in classrooms; provide adequate bins, recycling and supplies	☐
Engage a student focus group for their perspectives of high-risk areas	☐
Limit on-site visitors, including parents and communicate this clearly to community	☐
Begin to consider what physical space adaptations need to be made for the winter months	☐
Preparing Program: Logistical Considerations	
Consider a shortened day or alternate day schedule to minimize student strain and reduce the number of students in school at any given time	☐
Work to synchronize schedules with families and community	☐
Stagger class schedules to reduce hallway traffic during transitions like arrival, departure, class changes, recess	☐
Consider flexible scheduling for students identified above	☐
Consider which classes will need increased PPE (e.g. intensive needs/high touch)	☐
Reduce class size and where possible appoint one main teacher for students	☐
Incorporate student movement/stretching into programming, especially if students are expected to learn in one place	☐
Move learning outdoors when possible	☐
Shift hands-on learning to semester 2 where possible	☐
Incorporate education about physical distancing and health measures into Phys-Ed and Health programming. Adapt PHE for physical distancing	☐
Reconsider how experiential learning (Co-operative education, technical, apprenticeship classes) can be taught while complying with H&S expectations	☐
Provide engaging extended day programming for students of essential service workers or for students who require additional support such as tutoring	☐
Become paperless where possible, to reduce paper transferred between people (including assessments).	☐
Postpone school excursions and school-wide gatherings	☐
Reduce sharing of supplies like pens, art supplies, notebooks. They should be brought from home or purchased and given to students to keep	☐
Preparing Staff	
Staff re-enter in advance of students to receive adequate training of new H&S protocols	☐
Collectively re-examine assessment policy and practices to ensure students are not unfairly jeopardized.	☐
Demonstrate proper handling of PPE, masks, hand washing	☐
Help staff understand trauma: how to recognize and respond	☐

Review hygiene and cleaning practices with all staff, once school has re-established	☐
Require all staff participate in on-line Boundary training	☐
Include occasional staff and school volunteers in all H&S training	☐
Ensure staff or volunteers who begin working after school re-opens receive all necessary training	☐
Establish mentoring/coaching mechanism for new teachers or those staff needing more support	☐
Provide ongoing ICT support for teachers	☐
Employ an effective communication system to establish staff absences and telephone tree for immediate school closures	☐
Distribute leadership responsibilities with clear roles and alternates	☐
Engage staff in reconsidering how specific subjects or roles may need to be adapted	☐
Establish a check-in system for staff for their well-being	☐
Establish a response team consisting of union, health and safety, and leadership. Meet regularly to assess, walk through the facility, anticipate and respond to issues regarding health and safety as well as well-being	☐
The First Week of Reopening: Establishing New Routines	
Establish a H&S entry routine that include masks, hygiene and testing (where available)	☐
Consider purchasing face shields for all students and staff. They are reusable, less expensive, and enable better facial recognition	☐
Spend the first week, reviewing new routines and H&S expectations and new rules for student safety	☐
Establish student's personalized space/desk	☐
Establish class morning routines to check emotional/physical well-being as outlined by Public Health	☐
Establish new lunch time routines and co-construct amusing ways to engage students	☐
Provide maps and guidance for students about how to transition safely where use of physical space has been altered	☐
Increase supervision of students at times when students habitually gather (e.g. arrival and departure, recess, class transitions, lunch period)	☐
Invite student leaders to engage students in positive, physical-distancing activities and challenges	☐
Review and practice safety procedures (e.g. fire drills, lock downs) to ensure health and safety of staff and students are protected in times of crisis	☐
Establish a student crew to welcome and orient students who enter school after first week	☐
Adapting Administrative Procedures, Policies, Legislation	
Monitor attendance closely. Ensure individualized follow-up with students who are absent. Work closely with Public health to communicate concerns/patterns	☐
Review student attendance policy to minimize repercussions for student absenteeism	☐
Reconsider attendance expectations for senior students who may need to provide for their families	☐

Examine and advocate for fairness in language regarding mandatory attendance legislation	☐
Review student attendance system so that schools/Public Health can quickly respond to a virus breakout	☐
Vet the school-reopening plan with legal team	☐
Policy and Legislation Review	
Work with universities and licensing agencies to expedite teacher certification	☐
Suspend routine performance evaluations of staff	☐
Consider adapting required number of instructional hours	☐
Reconsider grade retention policy that harm students	☐
Examine graduating diploma and suspend requirements that jeopardize graduating students (e.g. exit tests, community involvement hours, compulsory hands- on courses)	☐
Re-examine privacy of information policy to ensure it addresses needs of public health and includes appropriate information sharing	☐
Review and make explicit adaptations to Student Behavior Code to ensure students are aware of expectations of physical distancing	☐
Seek convenient ways for students to receive the flu shot as appropriate	☐
Personnel Preparations	
Increase cleaning staff and consider redeployment of underutilized staff	☐
Hire and/or reassign cleaning staff. Increase cleaning schedules in high touch areas	☐
With employee unions, agree to an interim framework to expedite increased staffing and address health& safety and labor issues. Communicate unity whenever possible	☐
Reduce paperwork and administration tasks for teachers and principals where possible	☐
Appoint internal delegate to remain in contact with neighboring schools, districts, public health	☐
Identify staff over 55 years of age and anticipate increased absenteeism. Offer early retirement or reassignment for those who may be vulnerable	☐
Increase occasional/substitute teacher pool and where possible, assign them to specific sites so they are familiar with the new health and safety routines	☐
Include third party contract personnel in health and safety communications	☐
Transportation	
Review on campus bus line ups to maximize space between students or stagger bus arrival/departure times	☐
Review sanitization routines with buses and taxis	☐
Ensure safety using physical distancing on buses	☐
Coordinate with public transportation about altered schedules. Subsidize transportation for needy students	☐
Encourage senior and responsible students to walk or take bikes to school. Provide safe spaces for bikes to be locked	☐

Technology	
Where acceptable, install video cameras in classes so absent students can connect and participate fully from home	☐
Provide staff with free and accessible wireless	☐
Seek to provide free and accessible wireless for those who cannot afford it	☐
Communicate digital citizenship expectations with students, staff and families	☐
Provide 1:1 devices with mobile hot spots for all students	☐
Provide personalized keyboards to students and staff where 1:1 is not possible	☐
Provide access to virtual tech support for students, parents and families	☐
Consider use of TV or radio as a mechanism for connecting with students and families where wireless is not possible	☐
Communications	
Establish relationships with media outlets in advance for emergency announcements	☐
Be precise about the "communication tree." Clarify the communications protocol visually and in text so messaging is clear and consistent	☐
Overcommunicate protocols for rolling closures with community, parents, staff, and students	☐
Reduce size of monthly school newsletters and communicate more frequently in focused way (e.g. via social media, email, phone)	☐
Communicate messages: share good news, be positive, hopeful, calm	☐
Establish FAQ as a live document so that unique situations can be shared and resolved	☐
Community Partnerships	
With Public Health, identify key messages regarding safe practices, align protocols and provisional plans for rolling closures. Clarify hygiene practices when students return home every day	☐
Develop networks of schools and teaching teams to co-create instructional resources	☐
Create community coordination and implementation team which includes local politicians, leaders, unions and neighboring schools	☐
Enlist the support of community volunteers to adapt how free and reduced lunch is provided	☐

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Appendix 2: Deep Learning: The Global Competencies and Elements of Learning Design

Deep Learning is defined as the process of acquiring the six Global Competencies. These competencies describe the skills and attributes needed for learners to flourish as citizens of the world and encompass compassion, empathy, socio-emotional learning, entrepreneurialism, and related skills for functioning in a complex universe.

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

The Learning Design Process

Four key elements of Deep Learning design enable teachers and students to design learning experiences that are: mapped to student strengths and needs; create new knowledge using authentic, relevant problem solving; and help students identify their talents, purpose, and passion. The four elements work in concert to create the most powerful deep learning experiences. These four elements are:

Learning Partnerships

Dramatically new learning relationships that shift voice, control, and interactions are emerging and are at the heart of Deep Learning. Students and teachers aren't only partnering with one another but are also creatively finding ways to partner with others across classes, schools, and countries and with parents, experts, and the community. The new relationships have the potential to reframe learning by connecting learners to authentic opportunities locally, nationally, and globally.

Learning Environments:

If we want cultures of learning that cultivate energy, creativity, curiosity, imagination, and innovation, then we need to create learning spaces where students feel safe in taking risks. This begins when teachers intentionally create norms of belonging in which every voice matters, model empathy, deeply listen to student needs and interests, and structure tasks so that students feel competent as learners.

The physical environment is also critical—multidimensional spaces that offer flexibility for large- and small-group collaboration; quiet places for reflection and cognition; active areas for investigation, inquiry, communication, and documentation; and rich resources that are transparently accessible.

Making the walls of the classroom transparent is not merely about redesigning space; it requires taking stock of the ways we can connect inside and outside the classroom. When students are engaged, they begin to connect both inside and outside the school and make learning a 24/7 proposition.

Leveraging Digital

As we move from asking our students to be consumers of knowledge to asking them to create and apply their solutions to real-world problems, the digital world enables collaboration and multi modal communication, new ways to create and share new knowledge, and opportunities to amplify, accelerate and connect learners and learning. Effective use of digital facilitates Deep Learning, regardless of geographic location or time of day, and supports students' capacity to take control of their own learning both within and outside the classroom walls.

Pedagogical Practices

A critical awareness of the most effective instructional strategies helps us select those with the most impact. It's not about throwing out what we already know; it's about putting a new lens of depth over many of the effective pedagogies that remain essential for Deep Learning. It is also about eliminating the outdated, ineffective ones. These models most often require the teacher to take on the role of activator, enabling students to have choice in and take responsibility for their learning.

Appendix 3: Cues and Prompts

One way that teachers can begin to design Deep Learning is to consider the **Cues and Prompts** indicated in the template below. These prompts allow us to focus on the most critical dimensions of each of the Four Learning Design Elements.

Pedagogical Practices - Think about:

Who is "in charge" of the learning?

Learning that reflects the needs, interests and abilities of all students.

Learning opportunities that are authentic and based on real world issues.

Learning intentions and success criteria that are clear and understood by all.

A variety of assessment strategies and opportunities.

Learning Partnerships - Think about:

Learner "voice and choice" in selecting ways to learn and/or present learning.

Clear strategies for students, teachers and families to work in partnerships.

Learning Partnerships that move beyond the school, addressing significant challenges.

Student voice, agency and contribution as elements of the learning opportunity.

Clear collaborative processes and measures to ensure all partners know and communicate success.

Learning Environments - Think about:

Examples of how the physical and socio emotional environments support learners and learning.

Interactivity between the environment and the learners

A positive climate and culture for learning.

The level of student engagement.

Environments that incorporate authentic, real world and virtual elements.

Leveraging Digital - Think about:

Technology being used for more than automation or consumption.

Technology use that meets individual needs, approaches and abilities of the learners.

Use of Technology to leverage and accelerate deep learning.

Technology enabling learning anytime, anywhere in modes that are aligned to individual and group needs.

Technology being used to connect, share, promote and define new knowledge, processes, partnerships and innovations within and beyond the learning group

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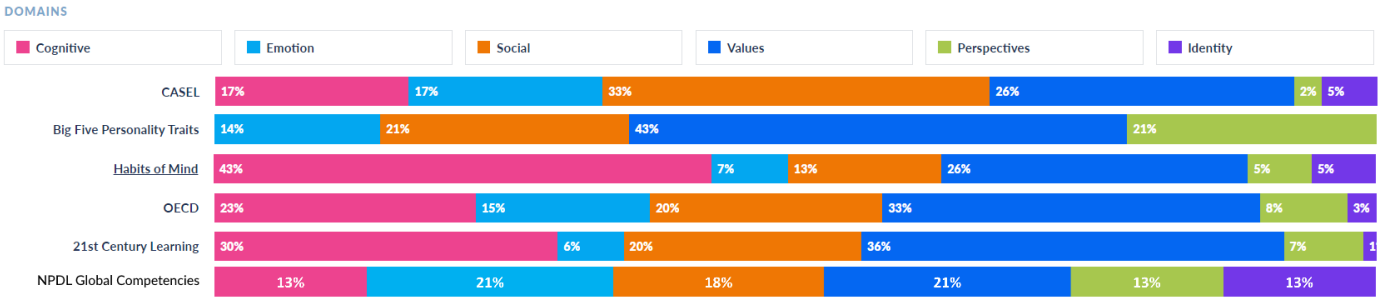
Appendix 4: Connecting Deep Learning, Well-being and Equity

Harvard University have developed a tool (http://exploresel.gse.harvard.edu/) that allows us to explore, connect and investigate up to 40 of the most well utilized and recognized SEL Frameworks. Harvard identified six domains common across these 40 frameworks: Cognitive, Emotion, Social, Values, Perspectives and Identity. Their tool allows us to compare the extent to which each framework addresses these domains, providing a common platform for analysis.

By using the Harvard Explore SEL tool we can clearly see that the NPDL Global Competencies are well represented across all 6 Harvard domains, with the greatest coverage across Emotional, Social and Values domains.

We can indeed go further and say that our Global Competencies cover ALL Harvard domains **thoroughly**, unlike many of the 40 models analyzed.

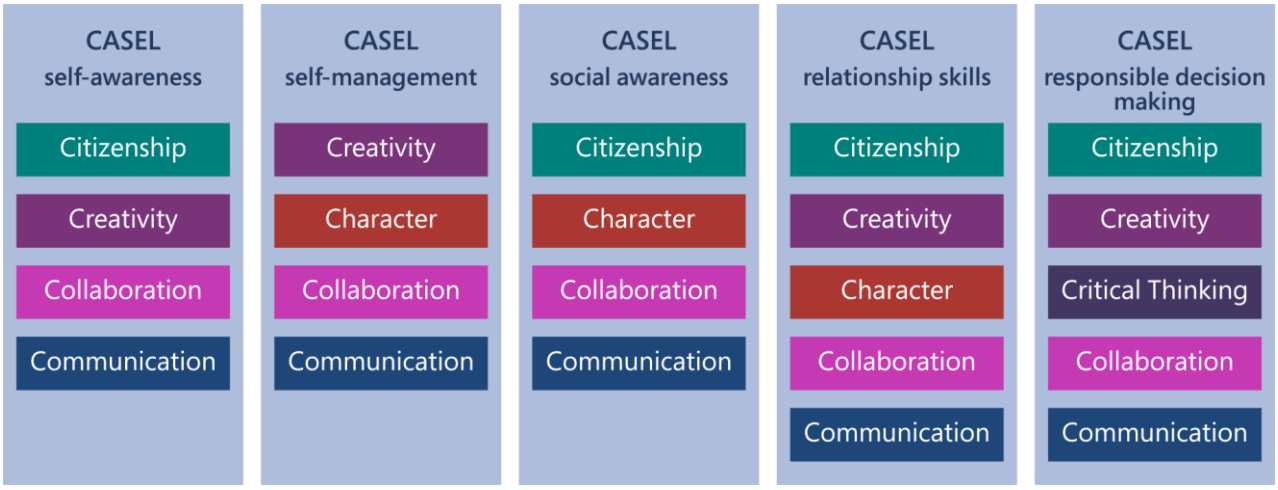
NPDL coverage across the 6 Harvard domains



A powerful differentiator of the NPDL work is that these SEL domains are embedded within the 6 global competencies and leadership tools. Thus, well-being and social emotional learning are addressed simultaneously with learning at all levels in a synergistic way.

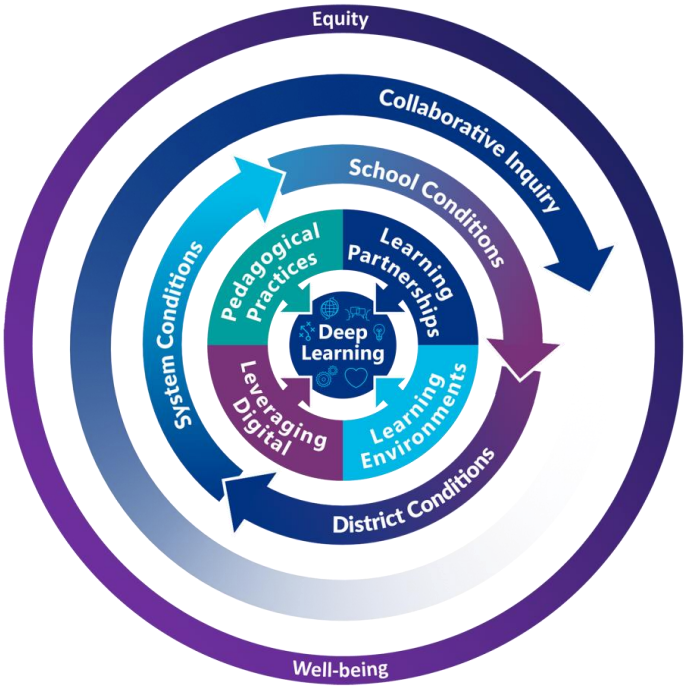
We also cross referenced the CASEL dimensions with the NPDL Global Competencies and dimensions.

There is a strong connection between the NPDL Global Competencies and dimensions and the CASEL competencies. For each of the five CASEL competencies there are direct correlations with at least four of the NPDL Global Competencies via their sub-dimensions. This indicates that the Global Competencies cover, in an integrated manner, the CASEL competencies. When we explicitly design to attend to and develop the Global Competencies, we are in fact enacting SEL in the classroom. Note that Communication and Collaboration are foundational across all CASEL Competencies.



There are strong ties between the CASEL model and the one used by OECD (based on the Big 5 skills and used in their Study on Social and Emotional Skills)21. We can be confident in saying that the Global Competencies therefore also cover off on the OECD SEL model.

A powerful differentiator of the NPDL work is that SEL competencies are inherent to all layers of the NPDL framework – they are incorporated as part of the system; the language, thinking and actions from within the earliest classroom, through teaching practice and school and system leadership.



Our **School Conditions Rubric**, and in particular the **Collaborative Cultures** dimension, elaborates on the conditions that combine to support SEL; reflective practice, collaboration, developing collective capacity, transparency, needs-focused action and powerful, purposeful relationships.

The **Leadership** dimension of the School Conditions Rubric also highlights the need for the intentional development of others as leaders, and student, family and community engagement in and influence on learning.

At a **district level**, the rubric again captures the importance of leaders serving as culture builders, developing shared purpose, understanding, and belonging, as well as distributed leadership. Districts use challenges as opportunities to grow capacity.

Appendix 5: Glossary

Learning comes first

Online Learning refers to learning that is facilitated wholly by the use of digital tools

Distance Learning occurs when teachers, students and classrooms are separate and uses a range of approaches including online usually over significant physical distances.

Remote Learning has emerged to describe emergency measures to move instruction from physical schools to homes in online and offline modes

Blended Learning involves a 'blend' of face-to-face and digital experiences usually delivered as part of a physical classroom experience

Flipped Learning is a pedagogical approach that inverts the traditional method of the teacher leading learning, instead handing responsibility over to the student. Students receive and engage with material prior to the classroom learning through videos/ tutorials delivered online.

Hybrid Learning approaches a hybrid approach builds on the successes of flipped, blended, remote, distance and online to intentional created learner-centered experiences which are profoundly personalized, relevant and engaging.

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