

POSITION PAPER:

Closing the Skills Gap

May, 2021

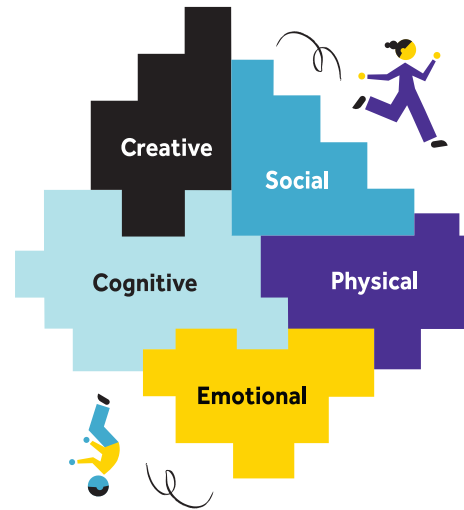
Our education systems are struggling to equip children with the breadth of skills they need to navigate our increasingly uncertain and complex world. The pandemic and other destabilising global events have created an unparalleled opportunity to re-evaluate what and how we are teaching our students, so that all learners develop the skills they need to thrive.



| The LEGO Foundation



Children's development and learning is complex. At the LEGO Group and the LEGO Foundation, we take a holistic view and highlight the importance of physical, social, cognitive, creative, and emotional skills and how they interact in a child's learning journey. We see the 'Skills Gap' as the mismatch between these skills that children, communities, employers, and societies need and how education systems are enabled and empowered to develop them. We are part of a global movement to broaden the focus of education to meet the growing demand for this breadth of skills that help children thrive and prepare for their future.¹ We believe that focusing on how children learn, not just what they learn, is key to closing the skills gap.



There are clear actions that governments and the international community can take to implement change across education systems. In this paper, we recommend bold and creative reforms to curricula, teaching and assessment. We call for catalytic investment in generating evidence on how systems can develop and effectively assess a breadth of skills. These reforms must be designed in collaboration with children, parents, communities, teachers, and education leaders and implemented equitably.

Breadth of Skills

The LEGO Foundation highlights five skills of holistic development that children need to thrive in today's interconnected and complex world. **Cognitive** skills like concentration, problem-solving and flexible thinking can help children tackle complex tasks and identify

solutions. **Creative** skills help children develop, express, and evaluate ideas and solutions in meaningful ways. **Physical** skills help nurture an active, healthy body to maintain wellbeing. **Social** skills empower children to be strong collaborators and communicators, enabling them to see things from others' perspectives. **Emotional** skills help young people to tackle everyday challenges by managing their emotions, relating to others, and building confidence.

Children and young people need these skills to thrive. At the same time, higher education institutions and employers say these skills are most in demand in the workplace.² Recent global events have underlined the need for a generation of creative lifelong learners with the skills to respond to constant change and to generate solutions to global challenges. Developing a breadth of skills is essential for a child's development and wellbeing, vital for their future, and critical for society.

Learning Crisis, Skills Gap

Even before the pandemic, the Education Commission estimated that by 2030, more than half of the world's children and young people (825 million) would not have the skills to participate in the global workforce. Employers in both developed and developing countries struggle to find candidates with the right mix of skills even where education levels are high.³

A key target of the education Sustainable Development Goal (SDG 4.1) is that all children complete quality primary and secondary education that leads to relevant and effective learning. However, UNESCO has estimated that more than half of children and adolescents (617 million) are not achieving minimum levels of proficiency in reading and mathematics. This includes the 258 million who are out of school because of poverty, violence, disasters, and inequality, as well as hundreds of millions who attend school but are still being failed by their education systems.⁴

In low and lower middle-income countries, governments' domestic spending on education has not kept pace with what is needed, and overseas development aid for education has stagnated.⁵ In OECD countries, education spend has increased but performance on mathematics, science, and reading has declined.⁶ Globally, there is a risk that investment in education could decline further because of the pandemic as long-term investments are de-prioritised in the face of competing immediate needs.⁷ The Save Our Future campaign estimates a funding gap of almost \$200 billion per year for low- and middle-income countries.⁸

The challenge for education systems across the world is to do more with less. It is imperative that we look for reforms that re-imagine the purpose and potential of education. We must seek and implement innovative solutions to achieve the rapid change needed for future generations.

Shifting mindsets, changing behaviours

There is another set of challenges, which pre-date the pandemic, that are about how skills have been understood, implemented, and valued by families, teachers, education leaders and policymakers.

- Education systems had lacked **a shared vocabulary and definitions** around holistic skills, that hindered the ability of different stakeholders, for example schools, parents, and employers, to align behind a common goal. Growing international attention on this issue has now led to governments, international organisations, employers, and civil society stepping up to tackle this challenge through research, dialogue, tools, and taxonomies. For example, the OECD responded to a request from member states to agree a way to define and measure creative thinking, which has unlocked global progress on this skill.⁹
- Underlying this is the need to encourage **a shift in mindset** that re-imagines the purpose of education by challenging a deeply entrenched mindset that values the traditional focus on literacy,

numeracy and retaining knowledge as a way to pass the tests required to access higher levels of education. We must broaden the traditional view that values education mostly for the purpose of advancement to higher levels of study and puts a disproportionate emphasis on the mastery of knowledge. We know that this emphasis is incomplete and that the workforce of tomorrow requires an education that develops a breadth of skills. Parents are increasingly demanding this “new” type of education that includes socio-emotional development and uses innovative teaching and learning approaches that are interactive and social.¹⁰

- As with any significant policy shift, **putting this approach into practice** is challenging. Many teachers feel they have not had sufficient training in innovative pedagogies to integrate a breadth of skills into their teaching. Those who do have the capabilities often lack the resources, tools, assessment frameworks and professional support to use them.¹¹ The workload created by high levels of bureaucracy and overstuffed curricula mean many teachers do not have the time, space or freedom to teach in innovative ways that encourage the development of holistic skills.¹²
- When skills are on the agenda, too often the focus is exclusively on reskilling adults. Education and skills policies often fail to acknowledge that developing a breadth of skills in childhood sets young people up to be lifelong learners. **Looking upstream** and focusing on skills early can prevent

the skills mismatch from continuing into future generations and support future reskilling efforts.

Ambitious, aligned, and sustainable reform

Transforming education systems to fulfil their potential to deliver breadth of skills requires systemic change. National governments, international organisations, civil society, communities, and employers have a role and responsibility in equipping future generations with the skills they need to thrive. An important condition for success is securing political will from all levels of governments. In 2017, Brookings’ research in 152 countries found reference to skills in 58 vision or mission statements and 117 policy documents.¹³ However, these high-level aspirations do not automatically translate to the necessary changes in schools and classrooms.

To address this implementation gap, there are three interconnected areas where policymakers and those designing and delivering reform can focus:

What is taught – Developing **curricula** that are explicit about the inclusion and value of a breadth of skills can act as a focal point for wider system change. These frameworks can provide the impetus to ensure that holistic skills are considered in lessons and integrated across subjects, while encouraging school systems and teachers to be flexible and creative.¹⁴

How it is taught – Innovative teaching methods, or **pedagogies**, such as experiential learning or pro-

ject-based learning are effective at developing holistic skills.¹⁵ They can engage learners who may not thrive with traditional teaching methods and can be meaningful and motivating for children and teachers alike.¹⁶ Teacher training providers and higher education institutions can enable this shift by including innovative pedagogies in the content and delivery of training courses, and providing long-term support to communities of practice.¹⁷

How it is measured – During the pandemic, education systems demonstrated a previously unimagined ability to adapt how they assess learners' progress. Rethinking **assessment** is an important reform to ensure that progress can be measured effectively. Innovative means of assessing creativity and holistic development are already available at local, national, and international levels.^{18, 19, 20} At an individual level we need regular, low stakes, creative, formative assessments that feedback into a learner's individual learning journey. At a system level, we need regular feedback loops from population-level assessments of skills development to enable accountability, comparison, and continuous improvement.²¹

Sustainable education reform requires significant shifts across these interdependent areas. Alignment is crucial to enable systemic change, otherwise reform efforts can become frustrated when one part of the system moves at a different pace. There must be effective feedback mechanisms between different levels of assessment and the impact of changes in what is taught and how it is taught to ensure progress in skills development is captured and improved over time.

What change needs to happen?

We need to re-think education and fundamentally re-evaluate what and how we are teaching our students. Focusing on how children learn is an effective way of developing the broad, dynamic, and interconnected skills children need for the future. The LEGO Group and the LEGO Foundation recommend that governments, policy makers and the international community take the following four actions:

Education reform. National policy makers must embrace an ambitious vision that broadens the traditional definition of educational success and integrates the breadth of skills as well as knowledge acquisition. This should be accompanied by an implementation plan with a suite of policy interventions - including a competency-based curriculum, innovative pedagogies, ongoing teacher professional development and holistic assessment - to deliver the systemic change needed to close the skills gap.

Invest in evidence. Research on the impact of embedding 21st century skills in education systems has delivered significant insights and unlocked new ways to unleash learners' potential. To maintain this momentum, it is vital that governments, donors, and the international community invest in partnerships between education settings and research institutions to expand the evidence base on student motiva-

tion and how children learn, to inform planning, policy-making, and implementation.

Learn from data. To create a virtuous circle of innovation, learning and improvement, the international community must invest in tools to gather and share data effectively. Governments should invest in designing systems to capture progress on developing a breadth of skills at individual and population-level. This should be accompanied by mechanisms for sharing knowledge and learning and feedback mechanisms to support system improvements.

Alignment and Co-creation. Children's learning and development is influenced by how they interact with their environment, not just by what happens in school. Unlocking progress means aligning all stakeholders in a child's 'learning ecosystem' – including parents and carers, communities, teachers, schools, governments, and employers – around a shared understanding and shared goal on the benefits of a breadth of skills. Those leading programs of reform must listen hard to all these stakeholders to understand what incentives and barriers exist for them. They should then work together to co-create solutions that take these perspectives and values into account. This is most effective when accompanied by support to bolster and integrate community resources, such as schools, libraries, parks, and workplaces, to enable communities to deliver their own innovative solutions.

Please visit the LEGO
Foundation website for
more information on skills

www.legofoundation.com

References

- ¹ Brookings (2016). [Visualizing the Breadth of Skills Movement Across Education Systems](#).
- ² WEF (2020). [Future of Jobs Report](#).
- ³ The International Commission on Financing Global Education Opportunity (2017). [The Learning Generation](#).
- ⁴ UNESCO Institute for Statistics (2017). [Fact Sheet 46. More than one-half of children and adolescents are not learning worldwide](#).
- ⁵ UNESCO (2017). [Aid to education is stagnating and not going to countries most in need](#).
- ⁶ OECD Database (2020). Total Expenditure on Education against Average Aggregate PISA Performance. Taken from a [Presentation to ACEL by Pasi Sahlberg](#) in September 2020.
- ⁷ Al-Samarrai, S. (2020). [The Impact of the COVID-19 Pandemic on Education Financing](#). Washington, D.C.: World Bank Group.
- ⁸ Save Our Future (2020). [Averting an Education Catastrophe for the World's Children](#).
- ⁹ OECD (2019). [Fostering Students Creativity and Critical Thinking](#).
- ¹⁰ Brookings (2021). [Know your Parents](#).
- ¹¹ UNESCO (2016). [Preparing and supporting teachers in the Asia-Pacific to meet the challenges of twenty-first century learning \(Phase III\)](#).
- ¹² Care, E. & Kim, H. (2018). [The Explicit Nature of Educational Goals for the Twenty First Century](#) in C. Wyatt-Smith and L. Adie (eds.), *Innovation and Accountability in Teacher Education*.
- ¹³ Brookings (2017). [New data on the Breadth of Skills Movement](#).
- ¹⁴ Lego Foundation (2020). [Creating Systems](#).
- ¹⁵ Brookings Institute (2019). [Learning to Leapfrog. Innovative Pedagogies to Transform Education](#).
- ¹⁶ Brookings (2020). [A New Path to Education Reform](#).
- ¹⁷ Brookings (2016). [How Education Systems Approach Breadth of Skills](#).
- ¹⁸ Rethinking Assessment (2020). [Open letter to the Sunday Times](#).
- ¹⁹ OECD (2019). [PISA 2021 Creative Thinking Framework](#).
- ²⁰ Global Centre for the Development of the Whole Child (2020). [Practical Measurement. Feasibility: tool selection](#).
- ²¹ Brookings (2018). [Education System Alignment for 21st Century Skills: Focus on assessment](#).