



United Nations
Educational, Scientific and
Cultural Organization



Mahatma Gandhi Institute
of Education for Peace
and Sustainable Development



EDUCATION BEYOND 2030

PROPOSAL FOR INTERNATIONAL SCIENCE AND EVIDENCE BASED EDUCATION ASSESSMENT

mgiep.unesco.org | mgiep@unesco.org

INTERNATIONAL SCIENCE AND EVIDENCE BASED
EDUCATION ASSESSMENT

What is the ISEE Assessment? Our vision

1. Given the accelerating *demographic, geopolitical, technological and environmental changes* and their associated risks and opportunities, there is an increasing consensus today on the need to reorient and repurpose education and rethink the organization of learning to meet the challenges of the 21st century (see UNESCO, 2015).
2. The world in 2030 will look dramatically different from the world today, let alone the world in 1990 when the Education for All (EFA) movement was launched. Despite this, the indicators of educational quality have not changed much since then. Although education for peace, sustainable development and global citizenship is now enshrined in Target 4.7 of the Sustainable Development Goals (SDGs), this is only a tiny step forward. The overall focus of SDG 4 on education is the unfinished EFA agenda, while much of educational change, especially in developing countries, is still increasingly driven by a utilitarian human capital ideology (UNESCO-MGIEP, 2017; Mochizuki, 2019).
3. The Delors Report published by UNESCO (International Commission on Education for the Twenty-first Century, 1996) embraced an integrated vision of education, highlighting four pillars of learning: *Learning to know, Learning to do, Learning to be, and Learning to live together*. However, the seminal report largely failed to elaborate the ‘science’ to support these pillars and provide ‘evidence’ on how holistic learning can be fostered using tools, methodologies and frameworks that have shown promise based on pilots conducted under strong science-based conditions and assumptions.
4. It has now been 23 years since the Delors report was published and yet the evidence of the impact it has had on actual learning and subsequent behavioural change is limited (UNESCO, 2015). For example, a 2015 global survey of over 1,500 young people from over 50 countries illustrated little change in perceptions, values and beliefs, or education interventions related to the pillar of “Learning to live together” and “Learning to be” and even “Learning to Do” (UNESCO-MGIEP, 2016). In fact, recent reports indicate an alarming increase in depression and anxiety among young people including school children (WHO, 2017) distinct from increasing intolerance and violent extremism. This rising increase in mental health concerns calls for immediate action to rethink the purpose of education and skills, values and dispositions to be fostered by education systems.

What is the ISEE Assessment? Our vision (*contd.*)

5. Moreover, in addition to the alarming illiberal and undemocratic trends, the rapid technological advancement and the role of artificial intelligence in societies, coupled with crossed ‘planetary boundaries’ and gravely risked well-being of current and future generations, point towards the need to rethink the fundamental purpose of education. Various organizations, irrespective of political and ideological differences, have called for transforming education, generally agreeing that we would need to shift away from a system that has focused on ‘transmissive pedagogy’ to a system that promotes transformative learning and develops competencies such as critical inquiry, collaboration, emotional resilience and creativity. For example, the World Economic Forum’s report “New Vision for Education” puts forward the idea that digital technologies could be used to build “character qualities” and that social and emotional learning (SEL) proficiency will equip students in a digital economy (World Economic Forum, 2016). Although yet in the right direction, the report still has its end goal as SEL proficiency not for a digital society but a digital economy.

6. The overall goal of the ISEE Assessment is to pool expertise on educational systems and reforms from a range of stakeholders in an open and inclusive manner and undertake a scientifically robust and evidence-based assessment that can inform education policy making at all levels and scales. It is not to be policy prescriptive but to provide policy relevant information and recommendations to improve education systems and the way we organize learning in formal and non-formal settings. It is also meant to identify information gaps and priorities for future research in the field of education.

7. What is an Assessment? In the education sector, the term assessment generally refers to activities used to measure student progress. Going beyond this narrow notion of education assessment, and drawing lessons from the Millennium Ecosystem Assessment (*see box below*) and further updating them with crowdsourcing approaches (Duraiappah, 2017; Duraiappah and Rogers, 2011), UNESCO MGIEP aspires to initiate a scientifically credible, legitimate, relevant and inclusive process that will assesses the state of education as a complex system and its role in achieving sustainable and peaceful societies.

The objective of the Millennium Ecosystem Assessment (MA) called for by the United Nations Secretary-General Kofi Annan in 2000 and initiated in 2001, was to assess the consequences of ecosystem change and the scientific basis for action needed to enhance the conservation and sustainable use of those systems and their contribution to human well-being. This paved a path for the 2012 establishment of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) – the intergovernmental body which assesses the state of biodiversity and of the ecosystem services it provides to society.

Key Characteristics

8. **Scientific Credibility:** Scientific credibility is key to a successful assessment. A necessary condition for good policymaking is that it must be guided by science and evidence. Attention to ensuring that the best science is used in the assessment, and a range of perspectives and views are addressed is a must in any good assessment on education. In addition to science, recognition of other knowledge holders must be acknowledged as an important input into the assessment process. This is even more important in the case of education.
9. **Relevance:** The many debates and discussions on the future of our education systems make an assessment such as the ISEE Assessment highly relevant in the policy decision-making process. This relevance runs from the sub-national (provincial, state or municipal) to the national and global levels. The growing interconnectedness and interdependence of our societies, economies and ecosystems in the face of a dynamic, climate-changing world demands educational reforms at a scale never seen before. As sustainability and peace become our overarching goals, a global assessment of the education systems around the world will generate recommendations for reconfiguring education systems, taking into account the particular local contexts within which they operate.
10. **Legitimacy:** Undertaking the ISEE Assessment with endorsements from a multi-stakeholder group will provide the legitimacy for the ISEE Assessment. The key question worth exploring further is if legitimacy can only be provided by an intergovernmental body such as UNESCO or whether it could come from a multi-stakeholder partnership that includes the private sector, civil society and most importantly, the youth. Many have argued that inter-governmental bodies become politicized and inefficient in carrying out their mandate in a scientifically credible manner.
11. **Inclusiveness and Transparency:** It is critical that the assessment includes as many stakeholders as necessary. The collective human intelligence has become a buzzword in the age of connectivity. Using the cloud to source from the crowd is an option that can be used in the ISEE Assessment. It reduces cost of face-to-face meetings, while allowing a much larger number of stakeholders to engage, while providing the transparency and ownership that is essential to make any recommendations being implemented successful.



Tentative Assessment Profile

12. The following is a tentative list of proposed areas for assessment. They are not intended to be exhaustive and will evolve as experts begin deliberations and the assessment itself. The initial categorization is as follows:

I. Purpose of education (why we educate/learn)

1. Philosophy of education; Ethics and education
2. History of education (historical development across the world)
3. Educational theories (e.g. human capital theory)

II. Content (what we learn across the world; what is often mandated by the nation states)

1. Foundational skills (literacy, numeracy)
2. Curriculum studies
3. Moral and values development
4. Digital literacy
5. Sustainability literacy

III. Cognition (how we learn)

1. Theories of learning
 - Higher order executive functions
 - Recent insights from neuroscience
 - Experiential learning
 - Transformative learning
2. Academic learning
3. Social and Emotional Learning
4. Art education
5. Physical education

IV. Context (where we learn)

1. School climate; whole-school approaches
2. Non-formal and informal learning settings
3. Peer-to-peer learning
4. Family

Tentative Assessment Profile (contd.)

V. Efficacy and quality of education systems

1. Equity and inclusion
2. Teacher education
3. Student assessment
4. Economics of education

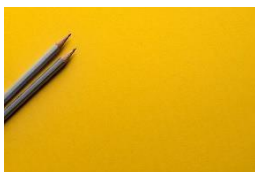
Note: education policy will be a cross-cutting element in all of the above.

13. The initial set of experts for the first workshop must have a relatively good representation of the key disciplines and stakeholders in education (*see Appendix 1*). A tentative first list, which is not exhaustive includes:

- a. Neuroscientists working in all aspects of education
- b. Cognitive scientists working in learning and education
- c. Educational Psychologists
- d. Comparative education scholars working on education systems, pedagogies and learning theories
- e. Philosophers and social scientists working on ethics of education
- f. Artificial intelligence experts working on education
- g. Digital literacy experts including gaming for learning
- h. Education policy experts
- i. Teachers
- j. Youth working in education
- k. Curriculum experts
- l. Social and Emotional Learning Experts

14. The expected outputs of the ISEE Assessment are:

- a. A Conceptual Framework on education based on the latest research from the sciences of learning coupled with on the ground lessons from experiential learning.
- b. A final report providing insights and lessons learnt from the assessments of the various areas identified and providing policy relevant but not policy prescriptive advice to all relevant stakeholders in education.
- c. A Summary for Decision Makers (SDM)



Way Forward

15. An exploratory workshop of about 20 to 25 experts from a range of disciplines related to the education sector will deliberate on and formalise a position paper, building on this initial Concept Note to lay out the scope of the assessment and a preliminary conceptual framework to guide the assessment. The conceptual framework will provide the basis for the assessment highlighting the different components that will further provide the structure of the assessment. The position paper will also lay out the process of undertaking the assessment including an initial list of Co-Chairs for the various working groups that emerge from the conceptual framework, the Coordinating Lead Authors (CLAs), who will be responsible for the delivery of the assessments of each component and the Lead Authors (LAs) and Contributing Authors (CAs) who will provide the different sections within the components overseen by the CLAs. The position paper will provide a tentative timeline for the assessment and the deliverables and milestones. A budget for the assessment will be provided by UNESCO MGIEP once the scope and timelines of the assessment are set by the position paper.



References

- Duraiappah, A.K. (2017) Linking Science and Policy: Using the Crowd in the Cloud in Global Change, Ecosystems, Sustainability, edited by P. Mukhopadhyay et.al. Sage Publishers, New Delhi, India.
- Duraiappah, A.K and Rogers, D. (2011) The Intergovernmental Platform on Biodiversity and Ecosystem Services: opportunities for the social sciences, *Innovation: The European journal of social science research*, Routledge.
- International Commission on Education for the Twenty-first Century (1996). *Learning: The treasure within*. London: UNESCO/HMSO.
- Mochizuki, Y. (2019). Rethinking Schooling for the 21st Century: UNESCO-MGIEP's Contribution to SDG 4.7. *Sustainability: the Journal of Record*, Vol 12, No. 2, pp. 88-92. (DOI: 10.1089/sus.2019.29160) <https://www.liebertpub.com/doi/pdf/10.1089/sus.2019.29160>
- UNESCO (2015). *Rethinking Education: Towards a Global Common Good?* Paris: UNESCO.
- UNESCO MGIEP (2017). *Rethinking schooling for the 21st Century: The state of education for peace, sustainable development and global citizenship in Asia*. New Delhi: UNESCO-MGIEP. <http://unesdoc.unesco.org/images/0026/002605/260568e.pdf>
- United Nations (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*. A/RES/70/1. New York: United Nations.
- World Economic Forum (2016). *New Vision for Education: Fostering Social and Emotional Learning through Technology*. Industry Agenda prepared in collaboration with The Boston Consulting Group. World Economic Forum. http://www3.weforum.org/docs/WEF_New_Vision_for_Education.pdf
- WHO (2017). *Mental Health Status of Adolescents in South-East Asia: Evidence for Action*.

Appendix I

International Science and Evidence based Education (ISEE) Assessment

We propose an International Advisory Board comprising of key personalities from a range of backgrounds with the common goal of improving education systems for humanity.

The ISEE Assessment Advisory Board

- Sir Kevan Collins (Co-Chair) – Chair, Youth Endowment Fund, United Kingdom
- Madame Najat Vallaud-Belkacem (Co-Chair) - Former Minister of Education, France
- Remi Quirion – Chief Scientist, Quebec, Canada
- Peje Emilsson, Founder, Kunskapsskolan Education Sweden AB, Sweden
- Mary Helen Immordino-Yang, Associate Professor, University of Southern California, USA
- Anurag Behar, CEO, Azim Premji Foundation, India
- Roza Otunbayeva, Former President, Kyrgyzstan (tentative)
- Nienke van Atteveldt, Professor, Vrije Universiteit Amsterdam, The Netherlands (ex-officio)
- Anantha K. Duraipappah, Director, UNESCO MGIEP, India (ex-officio)

List of Core Drafting Group Members

The assessment will have two co-chairs to oversee the implementation of the assessment and be responsible for the production of the final products of the assessment.

ISEE Assessment Co-Chairs

- Anantha K. Duraipappah, Director, UNESCO MGIEP
- Nienke van Atteveldt, Vrije Universiteit, Amsterdam, Netherlands

ISEE Assessment Secretariat

- Yoko Mochizuki, UNESCO MGIEP

Five Broad Areas:

- Purpose of education (why we educate/learn)
- Content and competencies (what we learn across the world; what is often mandated by the nation states)
- Cognition (how we learn)
- Context (where we learn)
- Efficacy and quality of education systems (who gets to learn; who benefits from the current arrangements)