



United Nations  
Educational, Scientific and  
Cultural Organization



Mahatma Gandhi Institute  
of Education for Peace  
and Sustainable Development

# Role of Education for Achieving SDGs: Rethinking Pedagogy

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**What do ESD and Digital Education agendas have in common?**

**Content vs Pedagogy**

**Three Metaphors of Learning**

**The 8 Affordances Model**

# Our time challenges the idea of what constitutes knowledge

## In a Digital Age...

- ❑ We need to rethink the purpose of education, as technologies seem to give immediate access to everything we need to know
- ❑ Rapid knowledge obsolescence

## In the Anthropocene...

- ❑ We need to rethink the current model of progress
- ❑ “Wicked problems” – we do not have answers to the challenges we are facing

## Calls for going beyond individual knowledge acquisition

- Fostering higher-order cognitive skills and social-emotional skills
- fostering collaborative learning in search for innovative solutions
- Calls for lifelong learning



# TEXTBOOKS FOR SUSTAINABLE DEVELOPMENT

A GUIDE TO EMBEDDING



MATHEMATICS  
SCIENCE  
GEOGRAPHY  
LANGUAGE



# rethinking schooling

FOR THE 21<sup>ST</sup> CENTURY

The State of Education for Peace, Sustainable Development and Global Citizenship in Asia



# Benefits of Embedding

## □ *Integrating ESD at the core*

- Not inserting new topics in the already overburdened curriculum
- Not an add on—ESD as an integral element of what teachers must teach
- Not diluting the subject content—making learning relevant

## □ *Promoting double-purpose learning*

- Re-purposing core subjects towards sustainable development and improving learning outcomes
- Fostering global citizenship for sustainability

# Three Metaphors of Learning

Learning as  
acquisition

Learning as  
participation

Learning as  
knowledge  
creation

Paavola, S. & Hakkarainen, K. (2005). The Knowledge Creation Metaphor – An Emergent Epistemological Approach to Learning. *Science & Education* August 2005, Vol. 14, Issue 6, pp 535–557.

Paavola, S., Lipponen, L. & Hakkarainen, K. (2004). Models of Innovative Knowledge Communities and Three Metaphors of Learning. *Review of Educational Research*, Vol. 74, No. 4, pp. 557-576.

# Global challenges

*Profound solutions/Addressing root causes*

II

I **Transformative**

*Prescriptive/  
Transmissive*

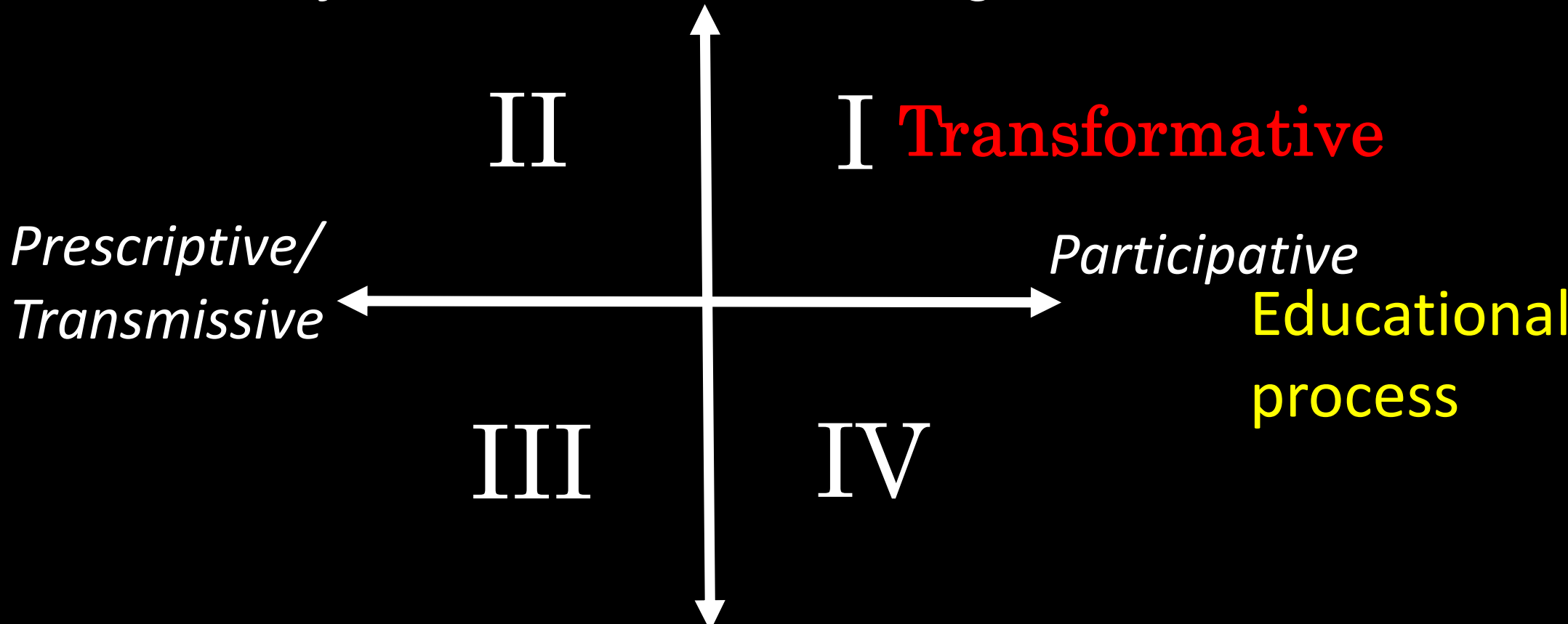
*Participative*

**Educational  
process**

III

IV

*Superficial solutions/ Quick fixes*



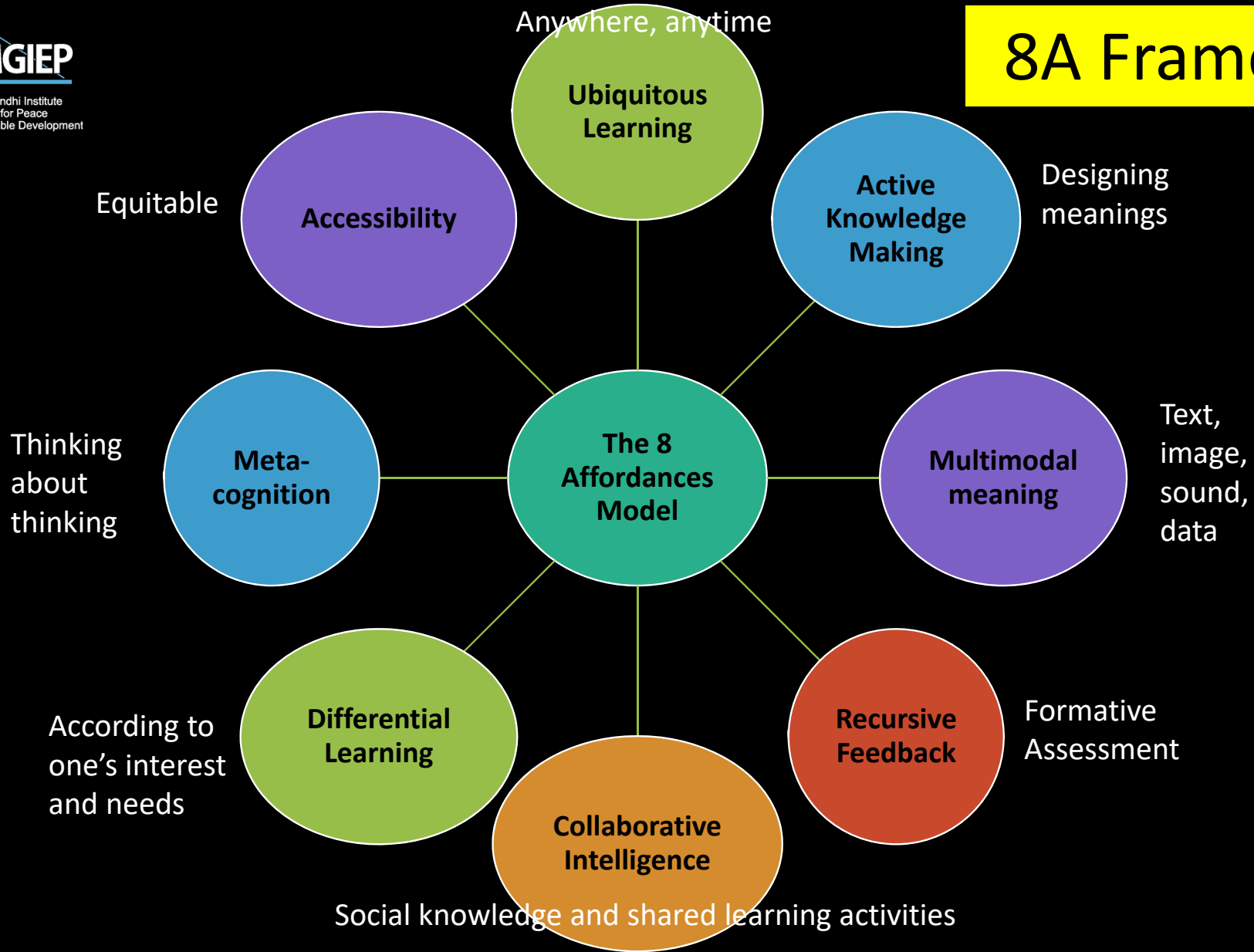


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# 8A Framework





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