


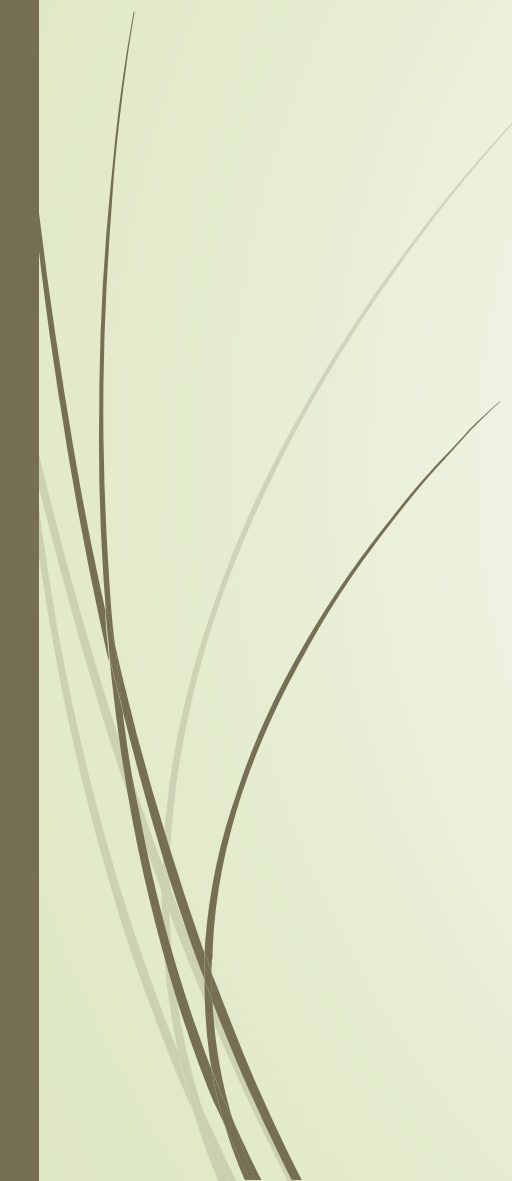


The Contribution of Project Zero to our Understanding of Teaching and Learning


CIRTL Seminar led by Áine Hyland in University College Cork, 23rd January 2018.



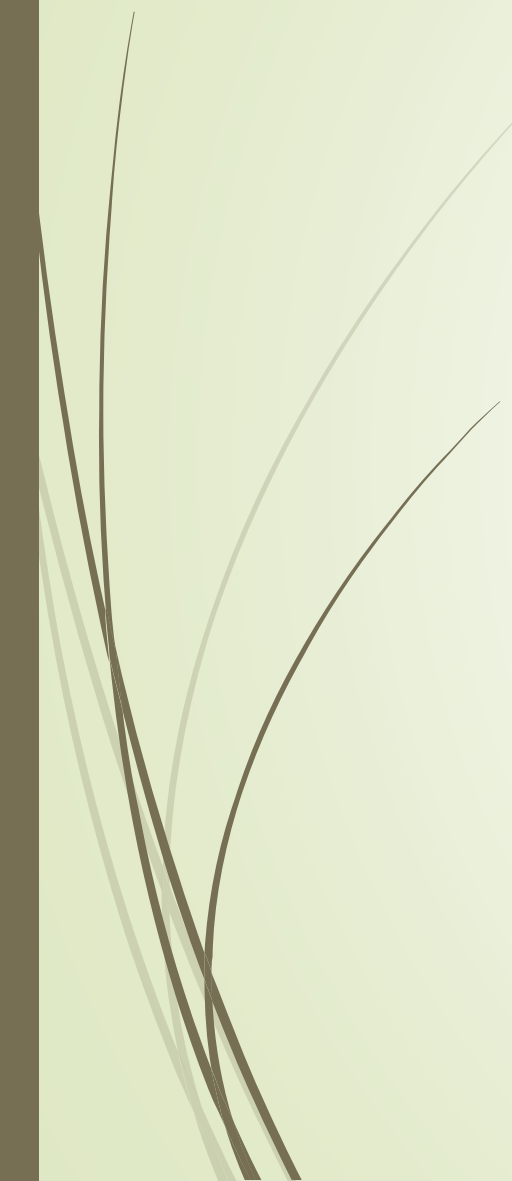
Project Zero at the Harvard Graduate School of Education




Project Zero (PZ) is an educational research group at the Harvard Graduate School of Education. It was set up in 1967. Its mission is to understand and enhance learning, thinking, and creativity in the arts, as well as humanistic and scientific disciplines, in formal and informal contexts and at individual and group levels.




Project Zero at the Harvard Graduate School of Education

- ▶ PZ was founded by philosopher Nelson Goodman who was concerned that virtually nothing (ZERO) was known about how effective learning occurred. Initially its focus was on learning in and through the arts. Over the years the project expanded to examine fundamental questions relating to teaching and learning. (PZ has recently had its 50th birthday).
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Project Zero at the Harvard Graduate School of Education

- ▶ Howard Gardner and David Perkins have been involved in PZ since 1967 and are probably its best-known researchers. They have authored or co-authored over 50 books and hundreds of papers and articles. Gardner's books on Multiple Intelligences have been translated into more than 30 languages and Gardner and Perkins' books on understanding and creativity have influenced learning and teaching worldwide.



Project Zero at the Harvard Graduate School of Education

We can summarise the focus of PZ research under 9 headings:

- ▶ The Arts
- ▶ Creativity
- ▶ Thinking
- ▶ Intelligence
- ▶ Understanding
- ▶ Assessment
- ▶ Educating with the World in Mind
- ▶ Character and Ethics
- ▶ Civic Agency

The Arts

Art Builds Bridges!
Helps us to Enquire
and Explore.
Compelling Questions?

- Figurative Language
- Arts Propel
- Project Co-Arts
- Project Muse
- Artful Thinking



Creativity

What is Creativity and How does it Develop?

Ideas!

Not just in the Arts!

Cycles of Critique, Revision and Reflection.

Creating Communities of Innovation.

Visible Thinking!



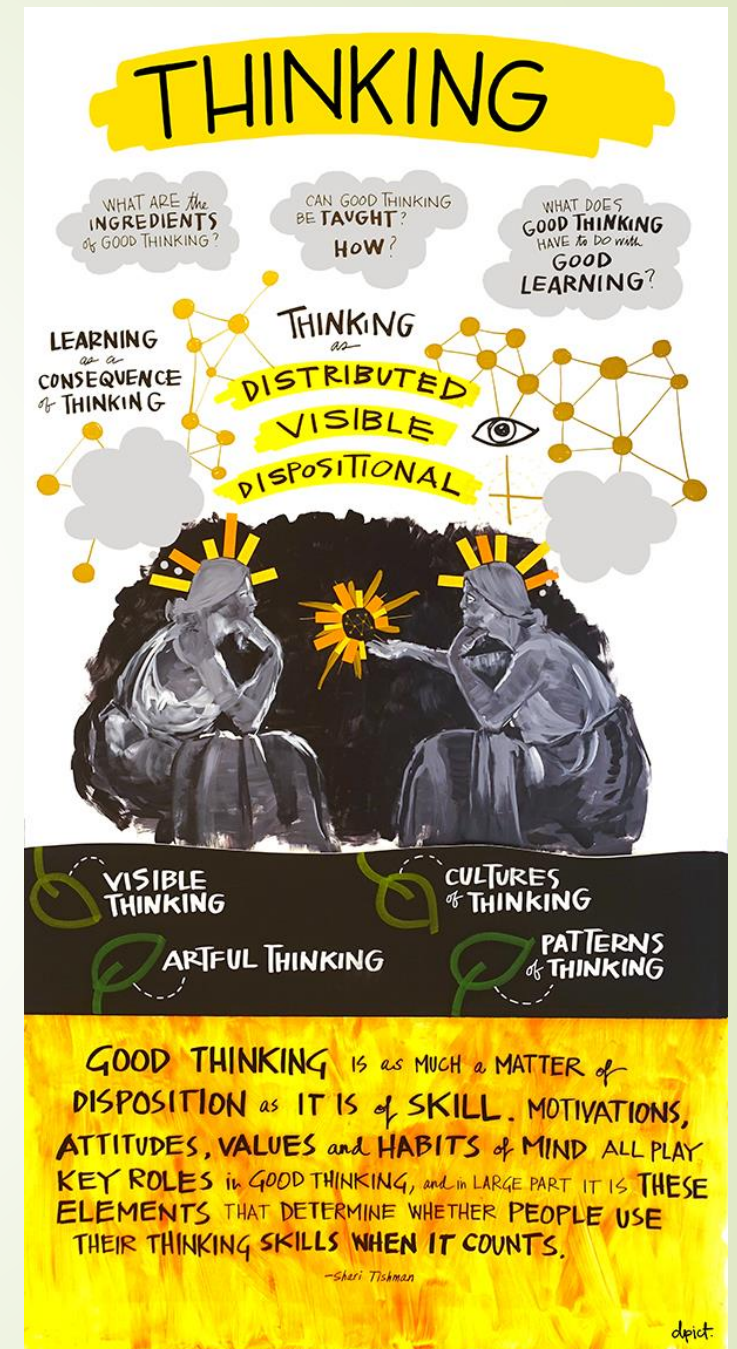
Thinking

What are the Ingredients of Good Thinking?

Can Good Thinking be Taught?

Does Good Thinking Lead to Good Learning?

- Visible Thinking
- Artful Thinking
- Cultures and Thinking
- Patterns and Thinking



Intelligence

- How do we Define Intelligence?
- How am I Smart?
- What about unrealised Potential?
- Intelligences are multiple – Multiple Intelligences theory
- Intelligence is NOT Fixed at Birth
- Intelligence is a Learned Ability
- Practical Intelligence
- Project Spectrum



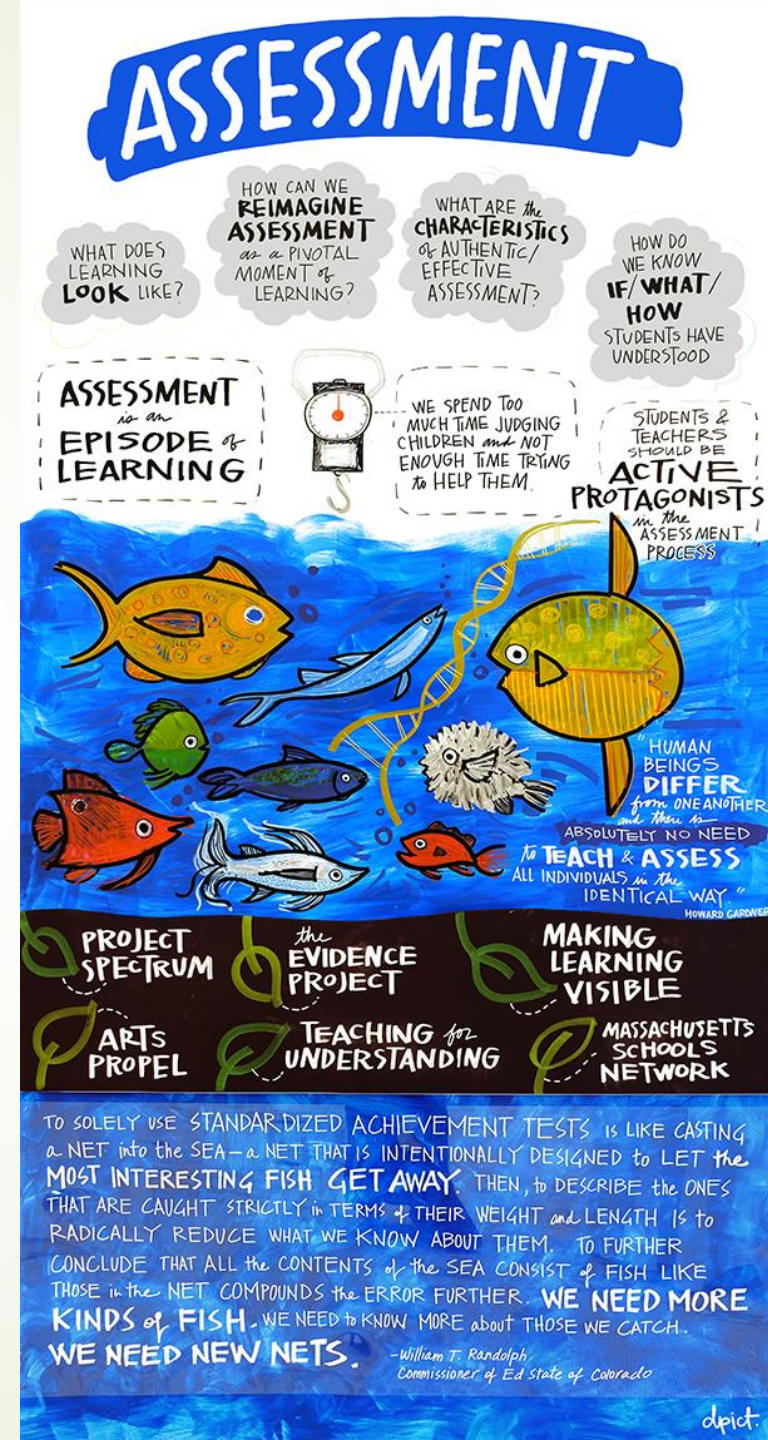
Understanding

- Understanding is Revealed through Performance
- What is the Nature of Deep Understanding?
- How do Learners demonstrate understanding?
- Teaching for Understanding
- Big Understanding
- Understanding and Consequences
- Thinking Dispositions



Assessment

- From “asseoir” – to sit with
- The Evidence Project
- Making Learning Visible
- Project Spectrum
- Assessment is an Episode of Learning
- What are the characteristics of Authentic Assessment
- Re-imagining assessment
- New Fish – New Nets!



Educating with the World in Mind

- Prepare Youth Well
- Inquiring into Understanding
- Cultures of Thinking?
- Future of Learning?
- Good Work
- Responsibility
- Reach Less well Served Children and Youth
- Creative / Social and Emotional / Ethical

EDUCATING with the WORLD in MIND

HOW CAN WE PREPARE OUR YOUTH WELL for the CHALLENGING DEMANDS of LIVING in a GLOBALLY CONNECTED and DISCONNECTED WORLD?

HOW CAN WE WORK DELIBERATELY and RESPECTFULLY to EXPAND OPPORTUNITIES for GLOBAL and INTERCULTURAL UNDERSTANDING for all CHILDREN?

IN WHAT WAYS CAN PROJECT ZERO and ITS COLLABORATORS LEVERAGE THEIR CAPACITY to REACH LESS WELL-SERVED CHILDREN YOUTH?

COGNITIVE

ETHICAL

SOCIAL EMOTIONAL

- INQUIRING INTO and UNDERSTANDING the WORLD and its LOCAL and GLOBAL CONNECTIONS
- TAKING and VALUING MULTIPLE PERSPECTIVES, INCLUDING ONE'S OWN
- COMMUNICATING RESPECTFULLY ACROSS DIFFERENCE
- TAKING ACTION to PROMOTE SOCIAL ENVIRONMENTAL WELL-BEING

TEACHING for UNDERSTANDING

CULTURES of THINKING

GOOD WORK

GLOBAL

FUTURE of LEARNING

OUT of EDEN LEARN

WORLD in PORTLAND

YOUNG PEOPLE TODAY ARE GROWING UP in a TIME of TRANSFORMATION - a PERIOD THAT IS CHARACTERIZED by TECHNOLOGICAL ADVANCEMENT, UNPRECEDENTED MIGRATION FLOWS, ENVIRONMENTAL DEGRADATION, and ECONOMIC and POLITICAL POLARIZATION. UNEVEN GLOBAL DYNAMICS ARE GIVING RISE to UNPRECEDENTED OPPORTUNITIES to LEARN and GROW; THEY ARE ALSO DEEPENING EXPERIENCES of EXCLUSION and CULTURAL DISCONNECTION. AGAINST THIS BACKDROP, SUPPORTING ALL YOUNG PEOPLE to BECOME GLOBALLY & INTERCULTURALLY COMPETENT BECOMES an URGENT EDUCATIONAL RESPONSIBILITY.

-Veronica Boix Mansilla & Liz Daves Duraisingh

dpict.

Character and Ethics

- To Act or Not to Act?
- And then to Act Wisely or Foolishly or Destructively?
- Good Work
- Good Play
- Good Collaboration
- Good Citizen
- Neighbourly Morality



Civic Agency

- Civic Agency is Multi-Faceted
- Help young people develop Civic Agency
- What Pedagogical Tools can we use?
- Children as Citizens
- Making Learning Visible
- Good Participation Project
- Children are not just Future Citizens – they are citizens now!





Multiple Intelligences Theory

Howard Gardner, *Frames of Mind*, 1983.



What is intelligence?

Intelligence

➤ A single, fixed and inherited entity that can be measured by IQ test?

Or

➤ Human capacity - what people can do or what they create in the real world?

The traditional view of Intelligence

In the heyday of the psychometric and behaviourist eras, it was generally believed that intelligence was a single entity that was inherited and that could be measured along a single scale.



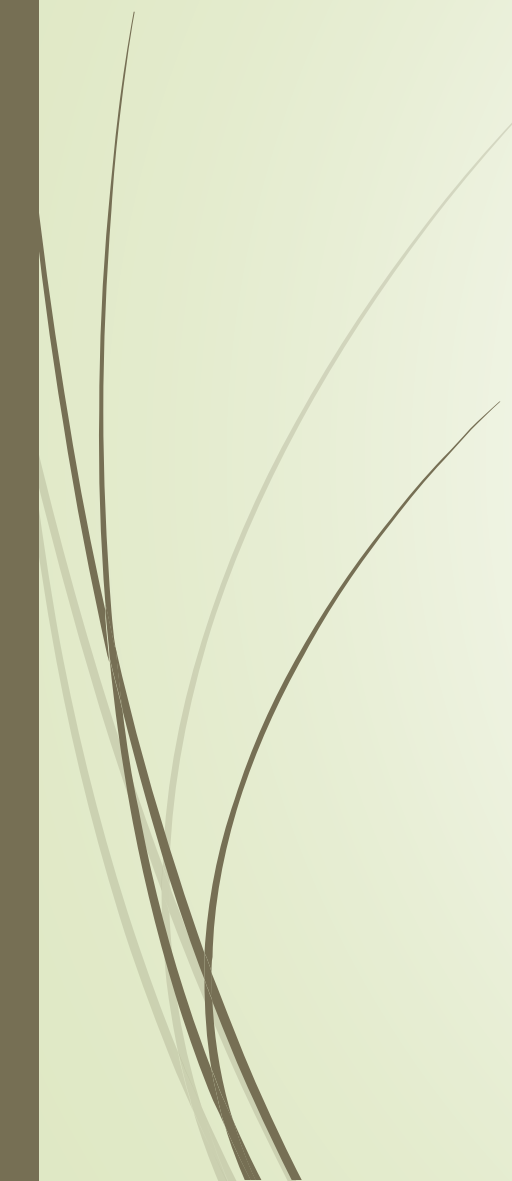
How Was IQ tested?

There were different kinds of IQ tests, but most analysed your visual, mathematical and language abilities as well as your memory and information processing speed. The results were then combined into one score: your IQ. IQ is a measure of how well you did on a test compared with other people your age. The average score was 100.



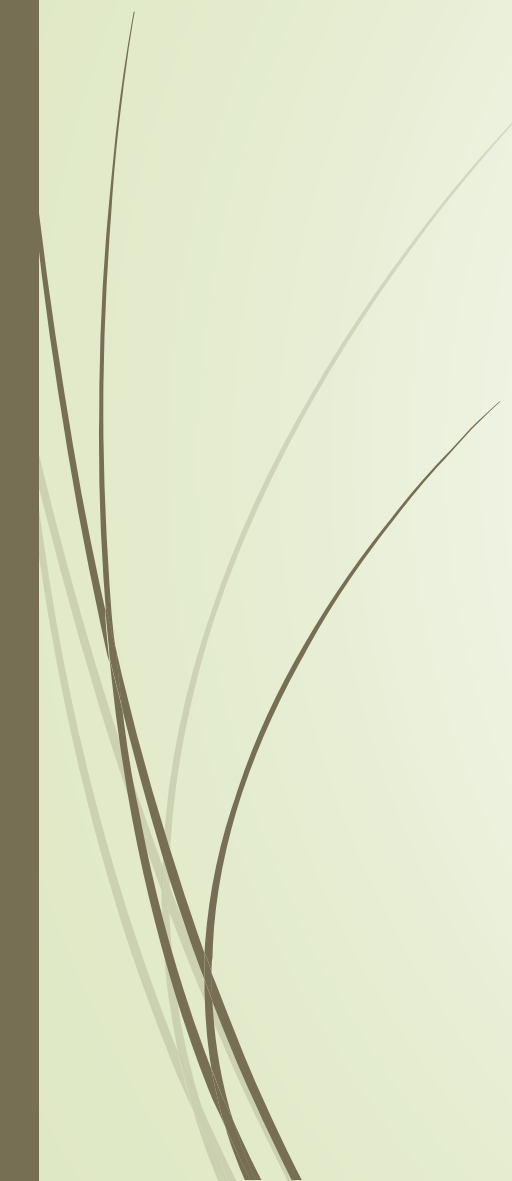


What an IQ test DOESN'T Measure!

- An IQ test doesn't measure your practical intelligence, i.e. knowing how to make things work. It doesn't measure your creativity. It doesn't measure your curiosity. It doesn't tell your parents or teachers about your emotional readiness.
- 



Intelligence has different meanings in different cultures

- Intelligence is seen differently in different cultures. Indigenous peoples in remote areas of the world value different “intelligences” to those valued in western “structured” societies. But every society needs a variety of “intelligences” to survive.**
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Howard Gardner's Theory of Multiple Intelligences

In the past few decades, the traditional view of Intelligence has been challenged by a number of researchers, including Howard Gardner.

Gardner's theory of Multiple Intelligences challenges the traditional "dipstick" view of intelligence as a unitary and fixed capacity that can be adequately measured by IQ tests.





What is Intelligence?

“ An intelligence is the ability to solve problems, or to create products, that are valued within one or more cultural settings. ”

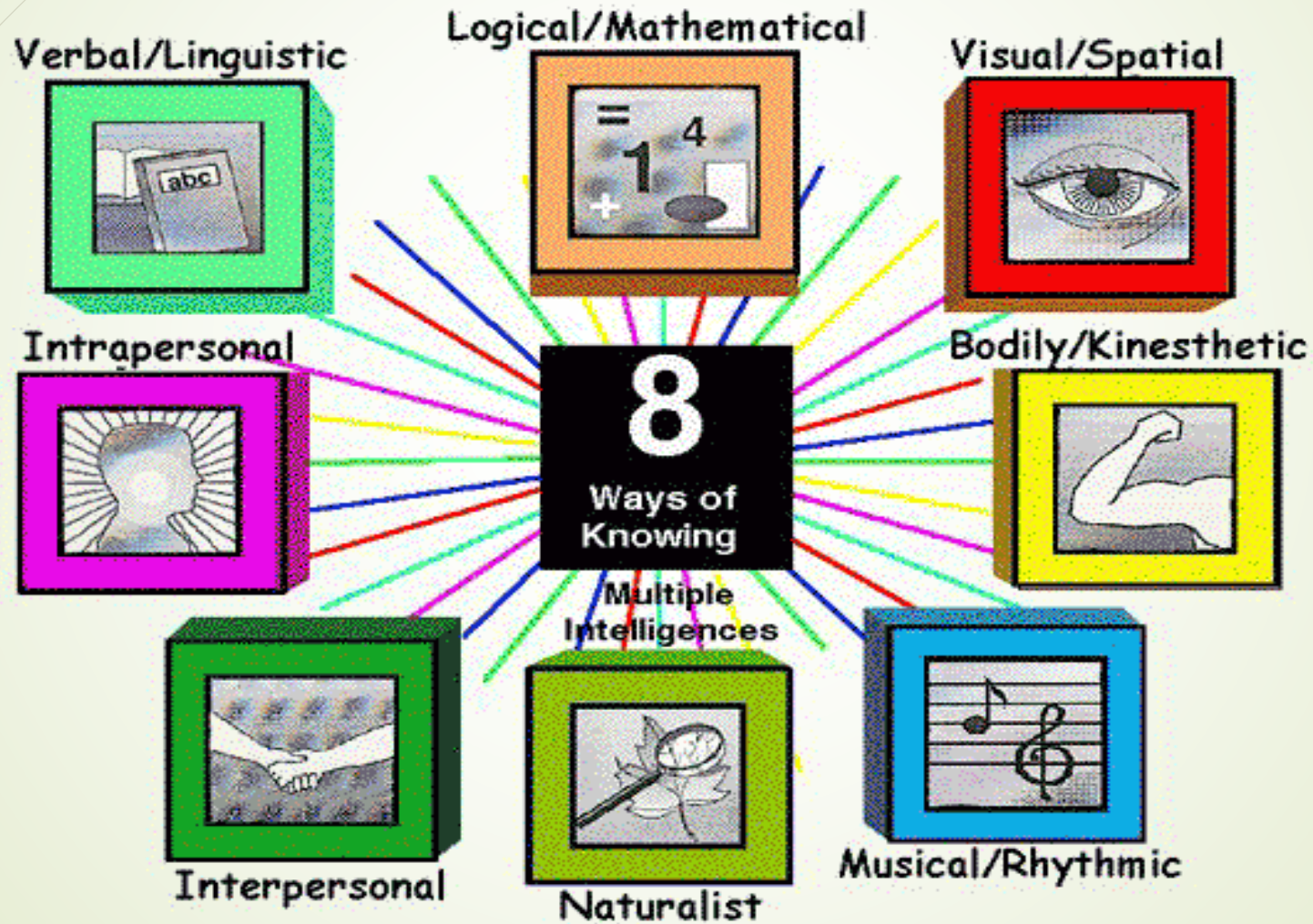
— Howard Gardner
FRAMES OF MIND (1983)

Howard Gardner's Theory of Multiple Intelligences

- ▶ “The human mind is better thought of as a series of relatively separate faculties, with only loose and non-predictable relations with one another, than a single, all purpose machine that performs steadily at a certain horsepower, independent of content and context”
- ▶ (Gardner 1999).



Multiple Intelligences





The biggest mistake of past centuries
in teaching has been to treat all
students as if they were variants of the
same individual and thus to feel
justified in teaching them all the same
subjects the same way.

— *Howard Gardner* —

AZ QUOTES



MI Theory and Learning Outcomes!

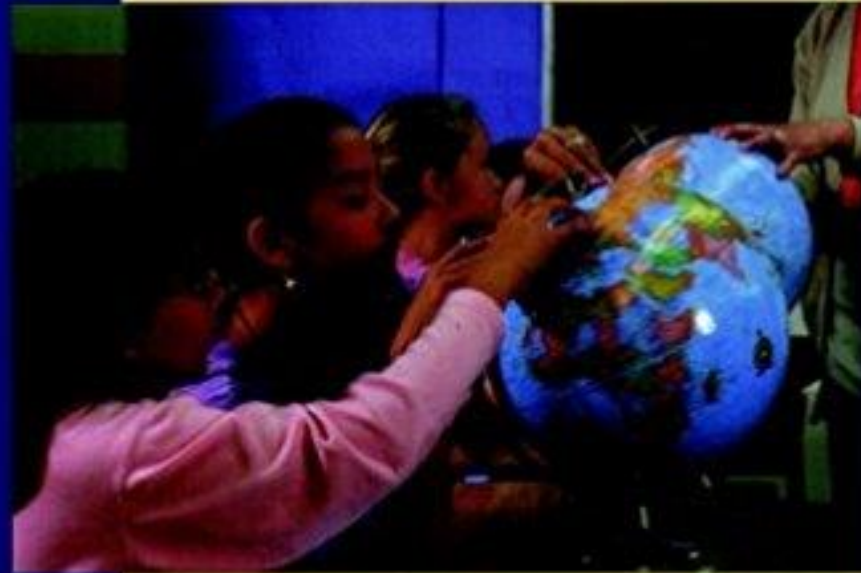
Those interested in MI must first state their educational goals and values. Only when educators clearly state and agree upon these larger goals - to teach for understanding, to prepare individuals for the world beyond school, to develop each person's potential fully and to make sure that students master core knowledge - does it make good sense to ask - Can MI be useful in pursuit of this goal? If so, how?

- ▶ Howard Gardner 'Multiple Intelligences as a Partner in School Improvement' in *Educational Leadership*, Sep. 1997.



Teaching for Understanding

THE Teaching FOR
Understanding GUIDE



TINA BLYTHE AND ASSOCIATES

Teaching for Understanding Framework:

based on collaborative research conducted at the Harvard Graduate School of Education



Generative Topics

Build the curriculum around important and accessible topics that interest learners and teachers

Understanding Goals

Define explicit goals for learners' understanding and make goals public early and often

Performances of Understanding

Provide multiple, varied opportunities for learners to perform in ways that develop and demonstrate their understanding

On-going Assessment

Assess learners' work frequently using public criteria that align with learning goals and suggest ways to improve

***Support reflective, collaborative learning communities
of teachers and learners***



Assessment

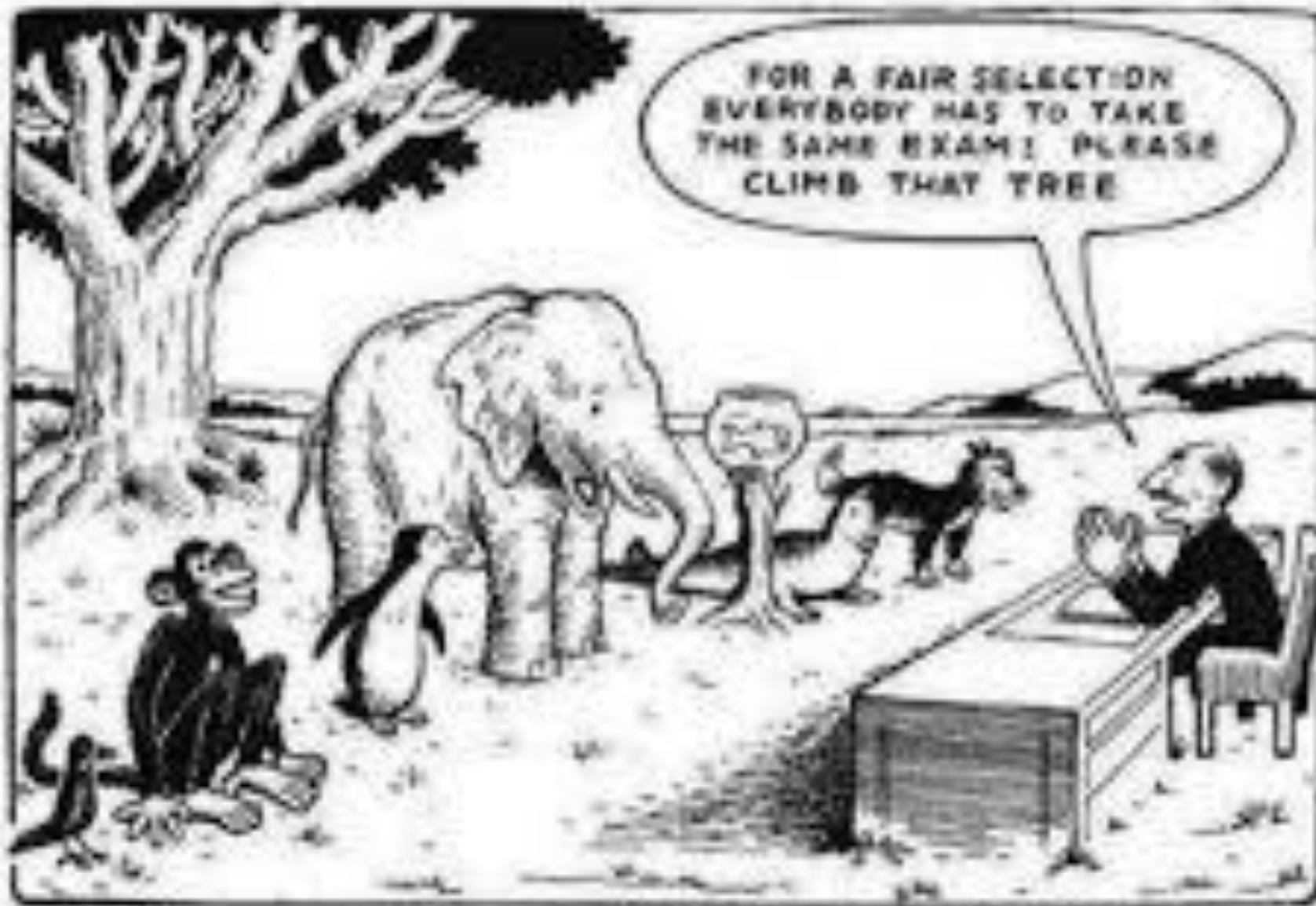


Assessment?



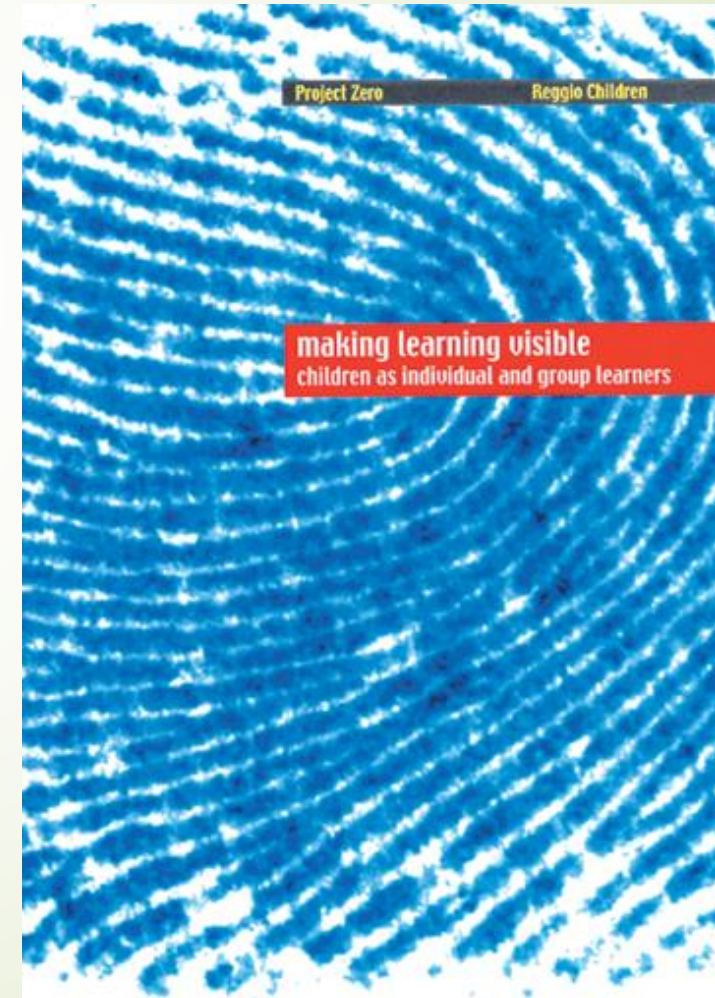
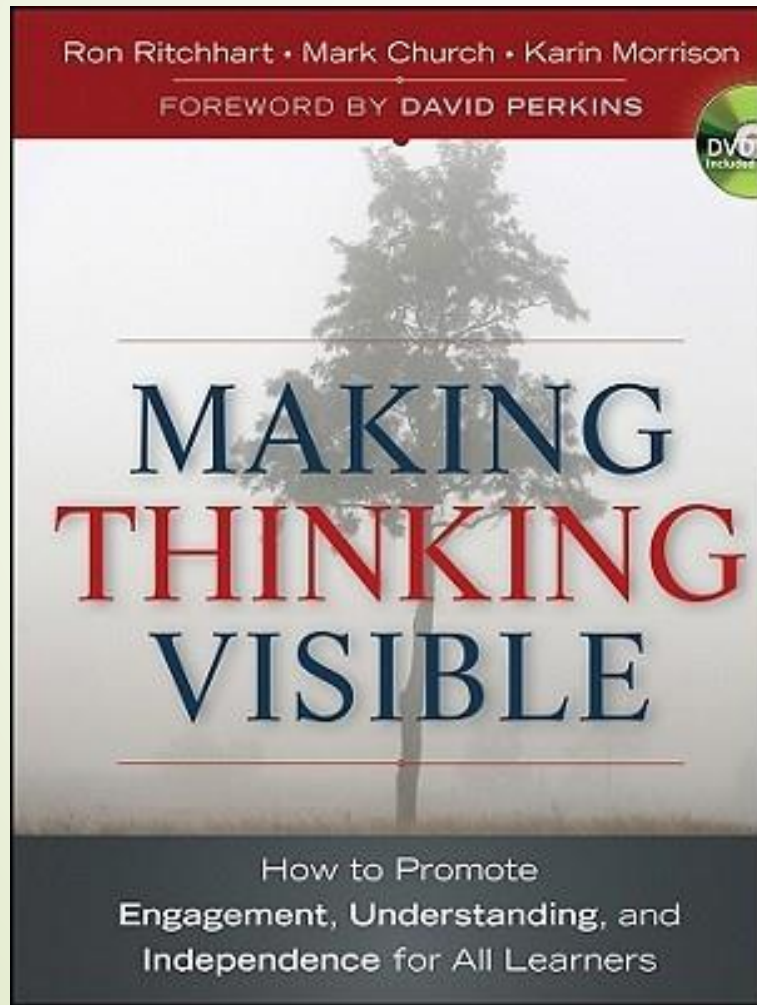
Assessment?





Our Education System

Making Thinking Visible; Making Learning Visible.



DAVID PERKINS

AUTHOR OF *THE EUREKA EFFECT*

**MAKING
LEARNING
WHOLE**



How SEVEN PRINCIPLES
of TEACHING *can*
TRANSFORM EDUCATION