

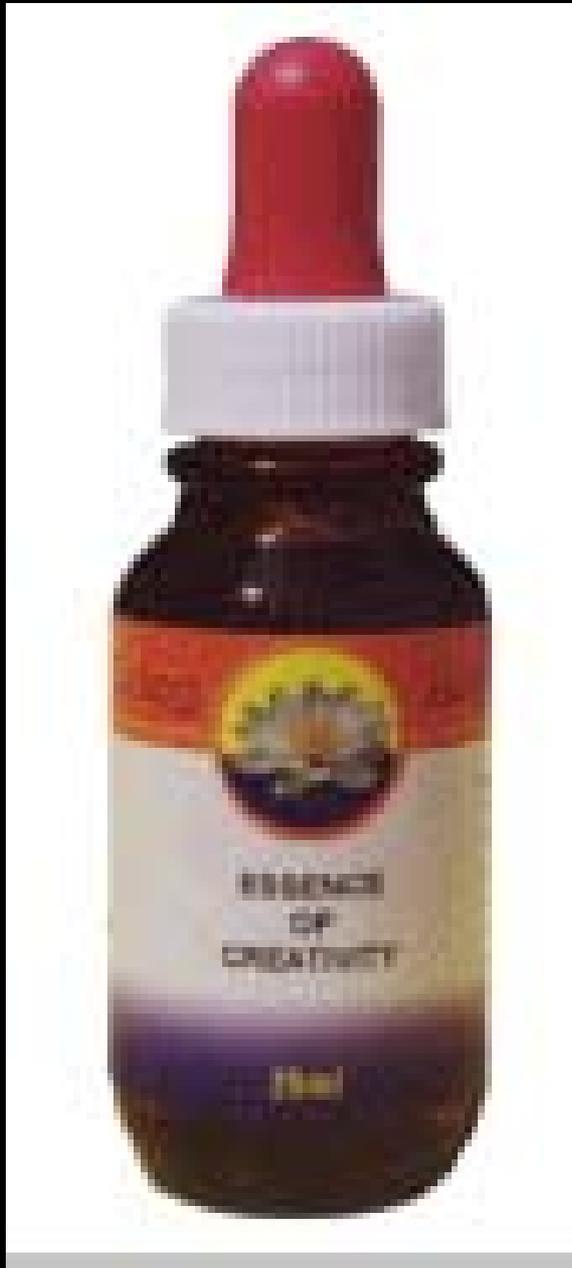


Professor Dr Anne Bamford
International Research Agency
anne@annebamford.com

Measuring creative capital



- creative capital
- artistic capital
- cultural capital
- economic capital
- social capital
- innovation capital
- spiritual capital
- educational capital
- negative/loss capital
- comparative capital
- ethical capital
- catalytic capital



Views on creativity...

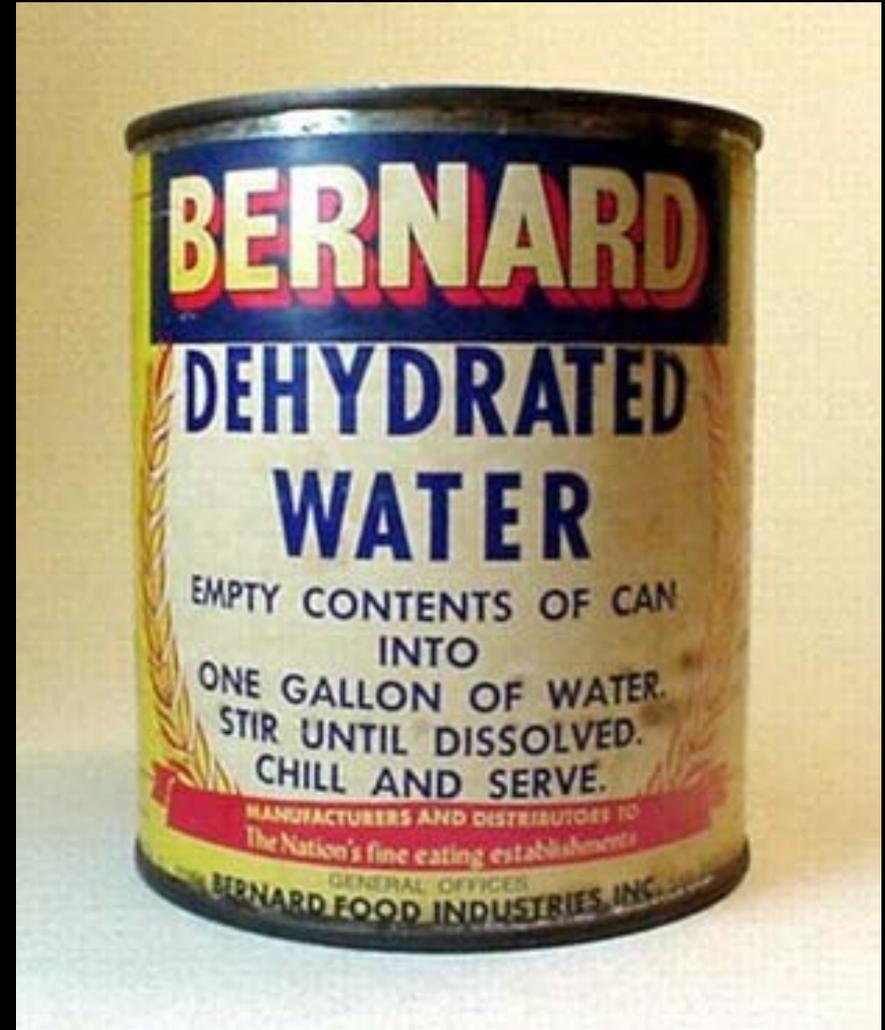
- The Greeks believed that it came from the Gods.
- Romantic view that it comes from within.
- 'Hippy' view that it comes from an unconventional Bohemian life.
- Modern view that it is fostered through experience and critical thinking.

Dance is the art form that communicates through the body. Roland Barthes, “My body is a thought”



Consumer or maker?

- Plato believed that being **exposed** to art may give rise to creativity
- Aristotle believed that through the processes of **making** an artist becomes creative



*Little and **big c***

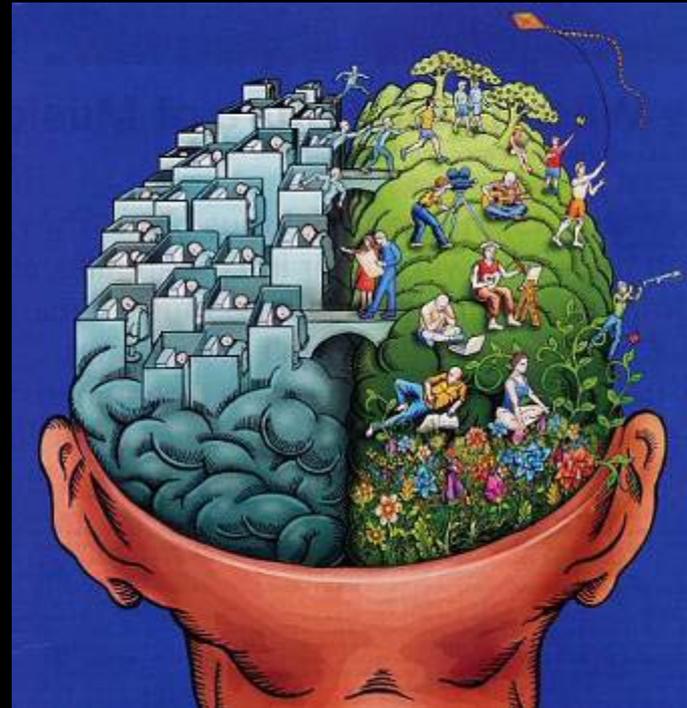
- Everyday or 'little c' creativity. The type of creativity that makes people adapt to the constantly changing environment, reformulate problems, and take risks to try new approaches to problems.
- **'Big C'** creativity, 'the kind that changes some aspects of the culture, is never only in the mind of a person'.

Neuroplasticity

It is a proven fact that we need sensual experiences in order to develop. Neuroscientific research demonstrates how thinking is stimulated by the senses and that creativity requires neuroplasticity.

Brain activation

- Highly creative individuals had significantly higher activation in **both** the left and right cerebral hemispheres, specifically in the areas associated with **fluency, originality and flexibility**
- Higher activation in these areas is related to the **vivid experience of insight, emotions and perceptions** present in highly creative individuals.
- These combined with **higher symbolic abilities** possessed mainly in the activated frontal lobes might enable highly creative individual to translate their experiences into creative works.



Rosa Aurora Chavez-Eakle 2009

YELLOW	BLUE	ORANGE
BLACK	RED	GREEN
PURPLE	YELLOW	RED
ORANGE	GREEN	BLACK
BLUE	RED	PURPLE
GREEN	BLUE	ORANGE

Better brains...

- Process visual information more quickly (visual experts)
- Have better fine motor skills
- Are more likely to learn by trial and error
- Don't start at the beginning
- Multi task
- Are quicker at scanning, navigating and analysing
- More creative (learning by experiment, role play, creation)
- More intelligent (distributed cognition, immersion)



92.7

Negative impact

There seemed to be between 17-28% (averaged at around 22%) negative impacts of poor quality programmes. Put crudely, this meant that in a global sense about ¼ of all the arts and cultural education a child receives is likely to have a negative impact



- SO WHAT WORKS...

1. Active partnership and collaboration



2. Flexible organizational structures



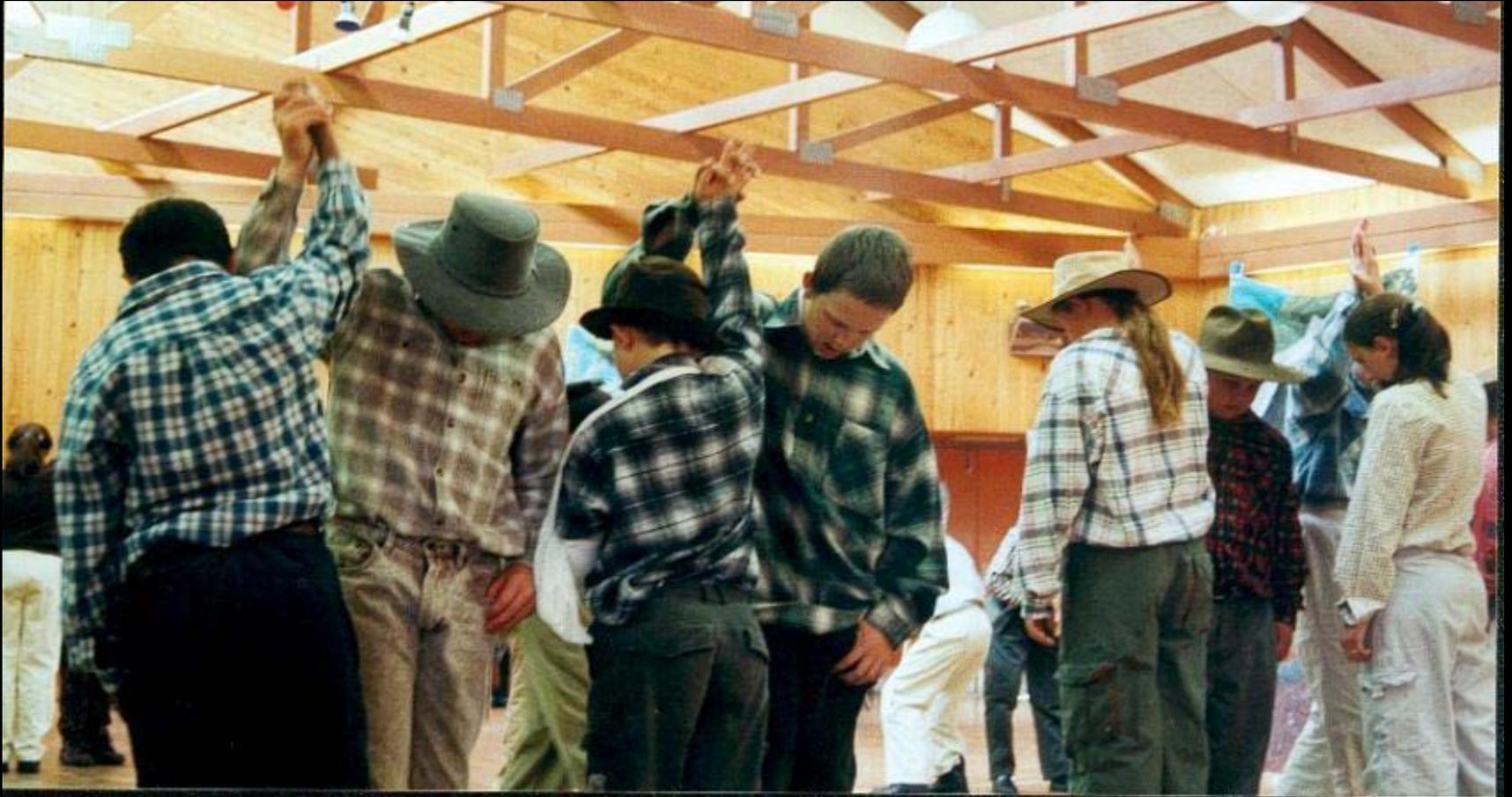
3. Accessibility to all



4. Ongoing professional development



5. Reflection and evaluation strategies



6. Local



7. Project-based, research-based



8. Active creation, performance and exhibition



10. Take risks



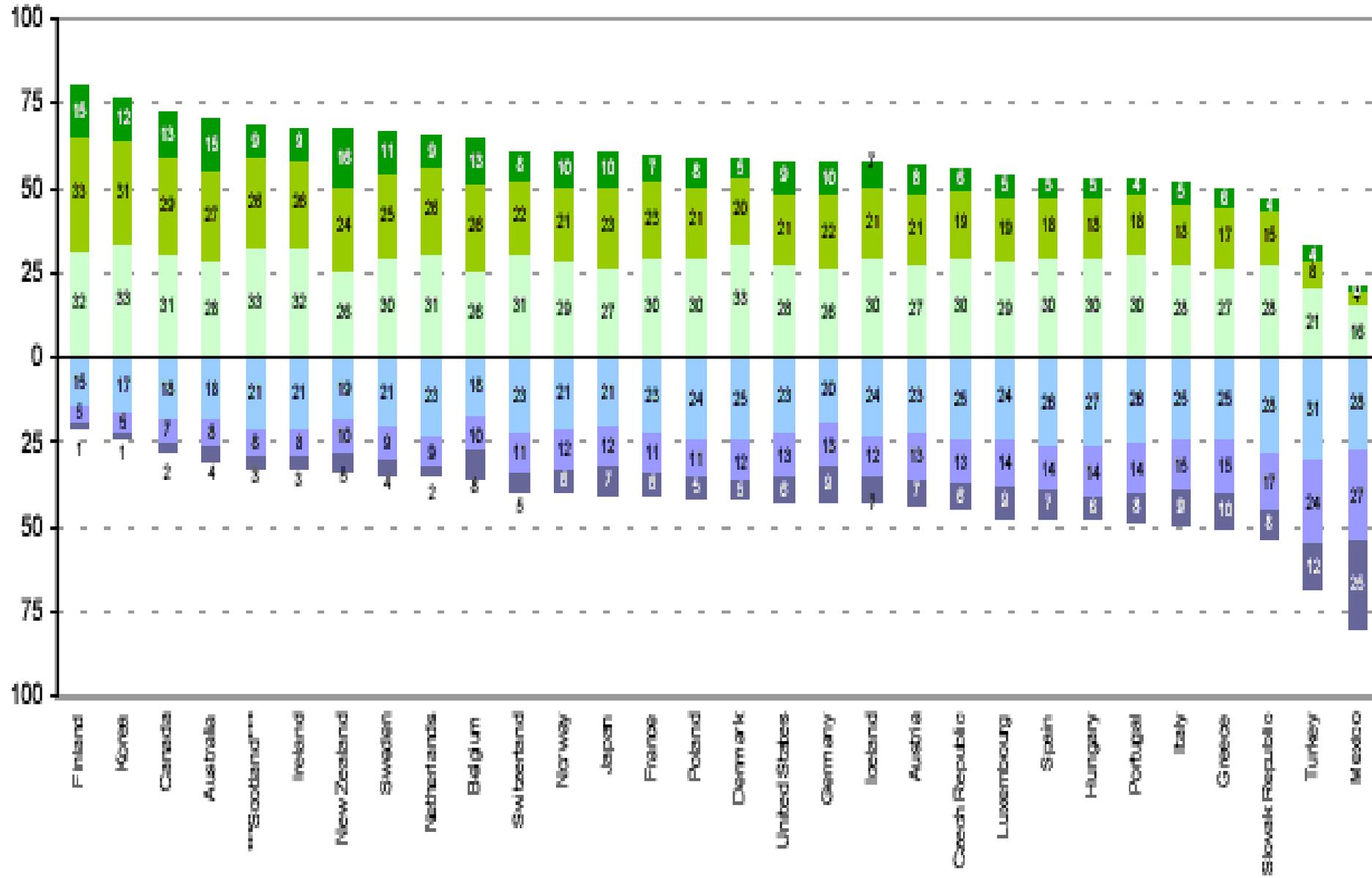
Education out of step...

- **Increased effort has to be made to establish synergies between knowledge, skills and creativity. With few exceptions educational politics gets no further than paying lip service to these ideas.**



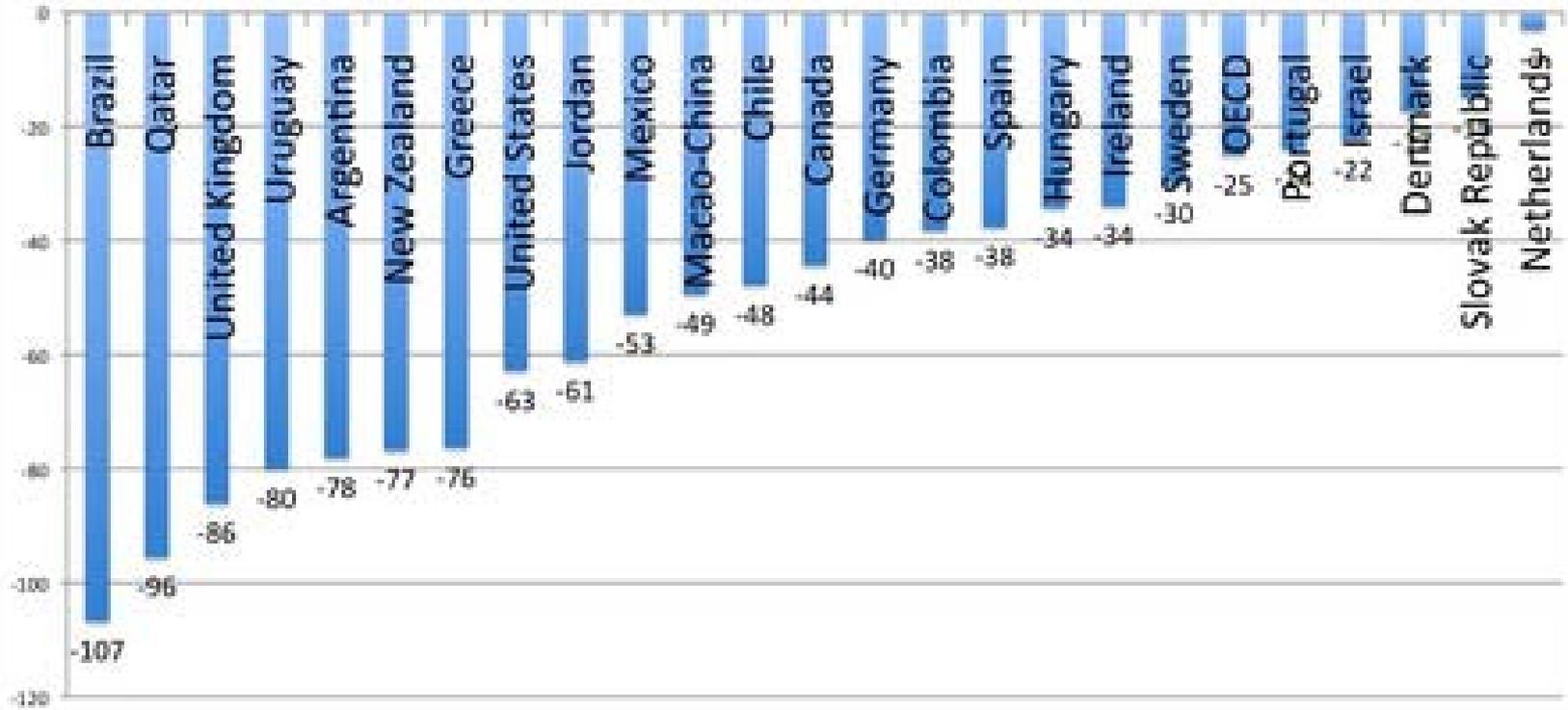






Britain's education inequality scandal

(Difference in performance on the science scale between public and private schools. Source: PISA 2006).



Creative PISA?

- **Sub-category within PISA (i.e. more creative questions)**
- **“The development of an instrument to test creativity in all European Member States could be considered”**
- **“This feasibility study provides the green light to start the process of developing a tool to measure creativity (internationally). “Such a project would require an important amount of investment and political will.” Ernesto Villalba 2008**



Arts rich schools

- More emphasis on problem solving than rules in Maths
- More likely to teach in smaller groups
- More likely to read literature
- More likely to get pupils to write
- Happier students
- Happier teacher

- Less likely to lecture to pupils
- Less serious behaviour problems
- Less lateness and absenteeism



Portrait of an arts-rich 20 year old

Catterall 2009 USA

- More likely to enrol in college/higher education (> 17.6%)
- More likely to volunteer (15.4%)
- More likely to have strong friendships (8.6%)
- More likely to vote (20%)
- 10% less likely to not be in either employment or education at aged 20.



Portrait of an arts-rich 26 year old

Catterall 2009 USA,

- Continue to do better than people who attended non-arts-rich schools.
- Found better jobs
(Arts poor students were 5 times as likely to report dependence on public assistance at age 26.)



Personal Impacts



Improving participants'

- communication skills
- analytical and problem solving skills
- creative talents
- social awareness
- self esteem and confidence
- quality of life and well being
- personal growth in the sense of a transformation of identity
- feelings of self-determination
- sense of control
- pleasure and enjoyment and increased artistic skill

Social impacts



- **Communication:** Including, communication of ideas, information and values; skills in planning and organizing; improving understanding of different cultures and lifestyles.
- **Partnership building:** Including building and developing communities; contribution to developing sense of community identity; social cohesion; recreational opportunities; improvement of public facilities and amenities; and, helping to convey the heritage of an area.

Educational



- Improved literacy scores (esp writing and speaking)
- Improved mathematic score
- Decreased absenteeism
- Perceptual cognition
- Non verbal reasoning
- *combinational* ('novel (improbable) combinations of familiar ideas')
- *exploratory* ('generation of novel ideas by the exploration of structured conceptual spaces')
- *transformational* ('transformation of some dimension of the space so that new structures can be generated')

Employment growth

The National Endowment for Science (UK), Technology and the Arts suggests that between 2009 and 2013 the UK creative industries, which are responsible for films, music, fashion, TV and video games production, will outstrip the rest of the economy in terms of growth by 4% on average. By 2013, the sector is expected to employ 1.3 million people.





Employability

Surveys show that soft skills such as adaptability were more valuable to employers than education or qualifications

NESTA have received evidence that suggests the soft skills employers are looking for are (in order of stated importance):

- **Communication skills**
- **Team working skills**
- **Confidence**

The 'Russell Group of Universities' (UK) state that universities and employers are using such extra-curricular activities to differentiate between candidates for places and jobs.

Innovation

Innovation is defined by the Oslo manual as:
‘The implementation of a new significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations’ (OECD and Eurostat 2005, 146).





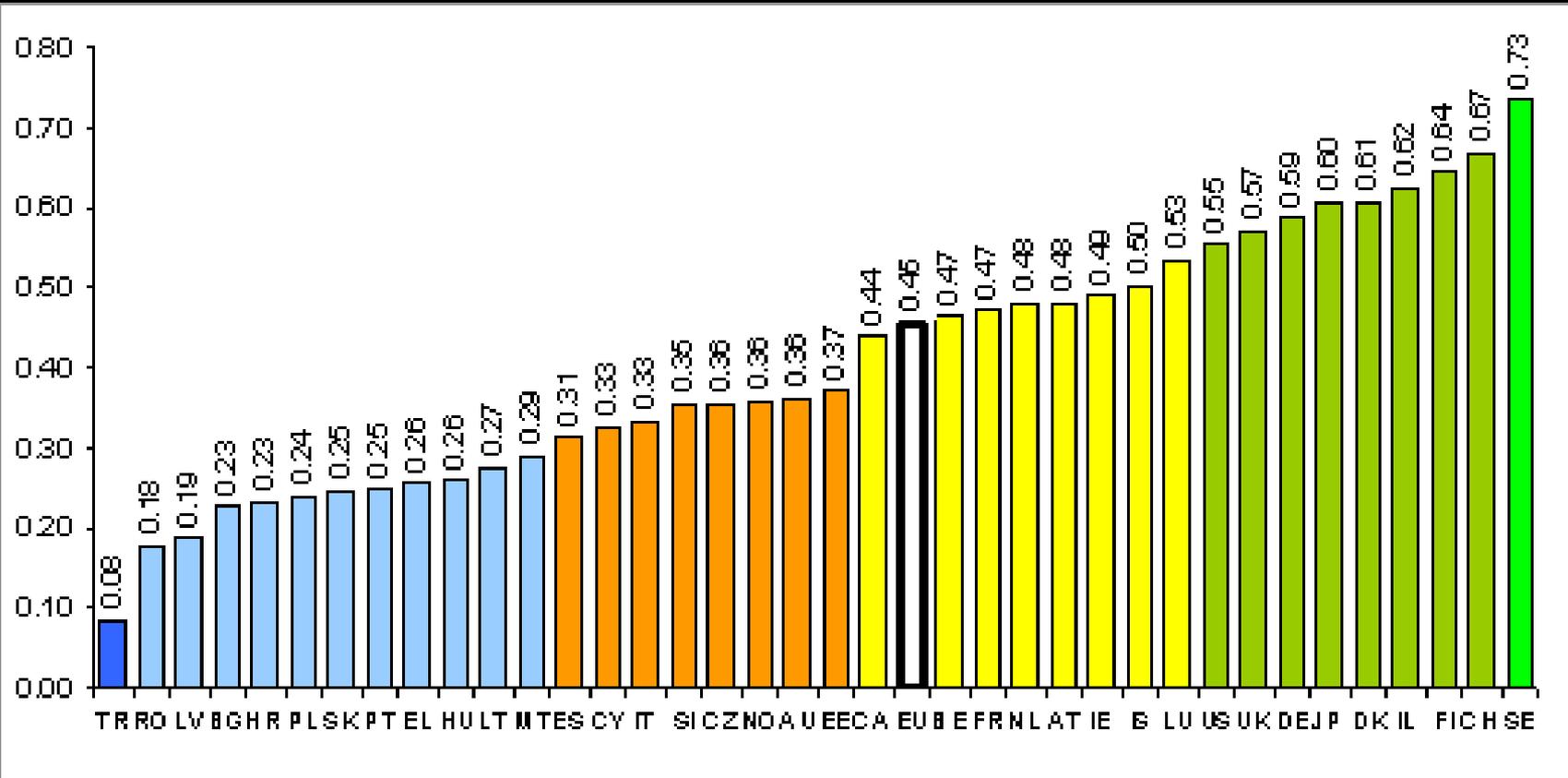
Pillars of Innovation

- Human capital
- Openness and diversity
- Cultural environment
- Technology
- Institutional and regulatory environment
- Creative outputs



Human Capital

- Hours on arts and cultural education in schools
- Number of arts schools per million people
- Tertiary students studying in the field of culture
- Cultural employment as a % of overall employment



Ranking

Innovation Scoreboard 2008

(EU15 Countries)

1. Sweden
2. Finland
3. Denmark
4. Germany
5. Netherlands
6. France
7. Austria
8. Uk
9. Belgium
10. Luxemburg
11. (EU average)

Active artistic participation

(Eurobarometer 2007)

1. Sweden
2. Luxemburg
3. Finland
4. France
5. Denmark
6. Netherlands
7. Belgium
8. Germany
9. UK
10. Austria
11. (EU average)

Final thought...

In the future, all children, all students, all citizens should be 21st century knowledge-builders, able to update their skills on their own. They will also learn to take initiatives — and sometimes risks — combining these new skills to create innovations available to all of society. Education should make them feel confident enough in their creativity to see these changes as opportunities to be seized, not as threats.

