Creativity and Innovation in Education

Dr. Sandra M. Dingli
Director
The Edward de Bono Institute
University of Malta
Education and Creativity ...

“Why is there so little apparent correlation between education and creative productiveness?”
J.P. Guilford (1950)

Similar questions are still being asked 60 years later!
MCST R & I Strategy 2008

Recommendation No 44

MCST is to take an active role to tirelessly and courageously influence the shape and focus of the educational system across all its tiers so as to instil a sense of creativity, innovation and risk-taking in Maltese children.
MCST R & I Strategy 2008

Recommendation No 47

A twenty-year science popularisation strategy based on the prongs proposed is drawn up by MEYE in tandem with the Office of the Prime Minister, as the Ministry responsible for R&I and for launching the Strategy in 2008 in order to permanently etch S&T on the culture and psyche of the Maltese people.
Malta NMC 1999

Development of a Sense of Aesthetics and Creativity

The learning environment at Kindergarten level should provide opportunities for children to engage in symbolic representation, imaginative play, art and crafts, drama, movement and music.

This process of aesthetic and creative sensibility should also include the appreciation of one's own creative work and that of others.
Malta NMC 1999

“There is also, for the first time, an important emphasis on creative thinking, reasoning, decision-making, and problem solving and a sense of curiosity. These are catalysts for the development and economic viability of our society and of the individual girl and boy.”

Minister of Education Dr. Louis Galea
“AKS is also of the opinion that site-based decision making and curriculum development place the school at the centre of planning, goal setting, and budgeting for school improvement. This also provides additional opportunities for the school to be more innovative and creative.

Site-based curriculum development also allows teachers and administrators to work with parents and the community to become more responsive to the needs of a particular school’s population.”

Frans Borg AKS (Association of Schools Councils)
Malta NMC 1999

This curriculum is intended to develop citizens who are independent, creative and critical thinkers. The vehicles for the development of critical and independent thinking are: questions, systematic investigation and the exchange of ideas with others.
Principle 3:  
*Stimulation of Analytical, Critical and Creative Thinking Skills*

... The National Minimum Curriculum regards students not as passive recipients of static content but as critical and creative thinkers and producers of knowledge. ...
Creativity in the educational system in Malta – Primary and Secondary

- Primary State Schools: Year 5: Our Nation – Pilot programme in six schools, five lessons on entrepreneurship (1 ½ hours each session) by class teacher (part of Young Enterprise)

- Primary State Schools: Pilot project - peripatetic thinking skills teachers teach Edward de Bono’s methods (action research conducted on effects)

- State Secondary Schools: Scoops (business plan competition with entrepreneurship skills)

- State Secondary Schools: All PSD teachers trained (ca. 2002) to apply Edward de Bono’s Thinking Skills (Creativity) in PSD lessons

- Increased networking with new system of ‘colleges’ (school clusters)
Creativity in the educational system in Malta – Post-Secondary and University

- Post Secondary (inc vocational): Young Enterprise Business Plan Competition annually
- MCAST: Institute of ICT, lectures and workshops on creativity, innovation and entrepreneurship
- CPD courses for current teachers
- University of Malta: Degree Plus – sessions on entrepreneurship, extra-curricular
- University of Malta: Undergraduate modules for students of Public Policy, Social Admin, Primary Education, PGCE, Engineering and Architecture
- University of Malta: B.Sc.(Hons.) Computer Science students – secondary area of studies in Creativity, Innovation and Entrepreneurship (started October 2007)
Creativity in the educational system in Malta – University

- University of Malta: Masters in Creativity and Innovation (www.um.edu.mt/create)
- University of Malta: International Joint M.Sc. in Strategic Innovation and Future Creation (to start October 2009 – Erasmus Curriculum Development Project – MT, DE, UK, FI – to be delivered mainly via e-learning and to target mid-career professionals) (www.einnform.eu)
University of Malta events

- The First International Conference on Strategic Innovation and Future Creation – Malta – 23, 24 March 2009 (Final conference for Erasmus curriculum development project see www.einnform.eu)
- Annual Edward de Bono Seminar and Examination in General Thinking Skills
- Global Entrepreneurship Week (www.unleashingideas.org) – over 78 participating countries globally
EU projects

- Universita di Bologna – FEPIC – Creativity and Innovation for Female Engineers in Leadership positions in industry – academia / industry links – (commenced October 2008 – 2 years)
- University of Teesside – Digital Communities – Proposal being discussed
- Other proposals being discussed
In line with the Lisbon agenda?

Fostering skills related to creativity, innovation and entrepreneurship in education and training will facilitate the strengthening of human resources in a strategic move towards a knowledge society in line with the recommendations of the Lisbon agenda – to make Europe more competitive and innovative.
Why do educators not respond readily to changing trends?

Education authorities tend to require too much time to keep up with present trends and to adopt state-of-the-art pedagogies (including increased interactive use of new digital technology) which work towards catering for short attention spans and multi-tasking – both of which are evident in young people who are our future generation.

Educators do not feel the need to react to current market trends.
New Strategy for education

A number of currently utilized methods of teaching and training are outdated. A concerted strategy for the updating of educational practices needs to be urgently formulated.

The strategy should be flexible and allow space for continuous improvement to keep up with the present changing scenario, in particular where new digital technology and interactivity is concerned.
Education needs to react to market forces too

Education has placed too much focus on preparing students for employment in manufacturing. Europe has moved towards a knowledge society where added value is a key element. This implies that educators should be trained to adopt new pedagogies which allow for the fostering of creative skills, increased interactivity and a learner centered pedagogy.
A new model of life long learning?

The strategy would involve a serious debate and include all stakeholders (including students at all levels). It would question accepted methods used in both training and education. The move should be towards a model of life-long learning. This could be composed of modules which would be taken at various stages of a person’s life (in contrast to today’s practice where education generally takes place from age 4 until age 23 – 25).
A new model of life long learning?

Life-long learning will enable the EU’s human resources to adapt to new contexts on a personal, social and professional level. This is especially acute in the area of new digital technology where change is constant. E-learning is an essential element in the context of life-long learning. Emphasis should be increasingly placed on the transfer of skills and knowledge gained and on the ability to adapt to new contexts and situations.
Careers on the decline
One example of changing market forces

Flores and Gray draw attention to the fact that the decline of careers as traditionally perceived constitutes the principal economic challenge facing the working majority and this necessitates new thinking about individuals’ economic lives.
To conclude ... 

Creativity and innovation should be viewed as an integral part of a holistic approach to education and can be made to form part of an educational organisation’s culture and shared values. Perhaps one idea could be the idea of ‘creativity champions’ amongst teachers in schools to spearhead this approach?
To conclude ... 

Creative ideas feed the innovation process

Improved innovation translates into

increased competitiveness, mainly because

a successful innovation policy implies

increased efficiency and

cheaper products, processes and services

which are more cost-effective

than those offered by competitors.
To conclude ...

Present action determines future destiny
– a destiny which may be designed and created
and which should lead towards
economic prosperity
if the right choices are made.
Creativity, innovation, entrepreneurship
and foresight play an important role
in this process.

*****
THINK POSITIVE!

Thank you for your attention!

http://home.um.edu.mt/create
sandra.m.dingli@um.edu.mt