This workshop has been organised by the Centre for Educational Research and Innovation (CERI) of the Organisation for Economic Co-operation and Development (OECD), together with Creativity, Culture and Education (CCE) and in partnership with the Ministry of Education, Singapore.

Organising committee:
Stéphan Vincent-Lancrin (OECD)
Paul Collard (CCE)
Eugenia Tan (Ministry of Education, Singapore)

Background

In recent years, creativity and innovation have been identified as the key drivers of the future world economy, particularly in the developed world. While education has traditionally focussed on producing a professional class, leaving the majority of school leavers to head for low or semi-skilled employment, this is no longer viable. In most OECD countries, low skilled jobs are predicted to represent a small share of the economy by 2015. So the major challenge for the developed world's education systems is to unlock the skills that will support creative and innovative employment and work.

Innovation is not just a driver of growth. The range of skills associated with creativity also enables young people to become adults while having a better quality of life. Imagination, curiosity, collaboration and resilience underpin success in relationships. Critical understanding and problem solving skills developed by creative individuals, allows them to develop and deepen their appreciation of the world and all that it has to offer.

But innovation will not flourish unless adults have the skills needed to adapt to changing workplaces. Workers and consumers should have the confidence and sense of purpose to enable them to propose and implement improvements. Creative minds are necessary in order to succeed as scientists, inventors and entrepreneurs. In innovation-driven societies, education and training systems must empower people to innovate and quickly respond to the need for new skills generated by
innovations in the workplace. Confronting these challenges will require policies that encourage innovation and improvements in the education system itself.

**Target audience and objectives**

**Objectives**

The workshop aimed to:

- Outline the most significant policy, practice and initiatives that can lead to better equip students with skills in thinking and creativity in education systems;

- Identify the most significant barriers to their full implementation as well as the conditions that hamper and facilitate this kind of education, notably in Asia;

- Develop specific recommendations and action steps to address these barriers;

- Provide participants with a space for feedback on their practices and international peer learning.

**Workshop format and target audience**

This two-day, by-invitation only, international workshop brought together senior policy officials, education decision makers and researchers with an interest in shaping education to work towards innovation in the 21st Century economy. Participants were a mixture of senior officials, education innovators (including teachers) and researchers. They have significant experience in these issues amongst them, and in the implementation of innovation-driven approaches in Asia-Pacific education systems.

The format of the workshop was intended to promote discussion and debate. In particular, the event provided space to discuss the relevance of international evidence and theories to the Asian educational context. It also presented Asian’s best or promising practices, which either support or challenge approaches that have been successfully introduced in non-Asian economies. In addition, the number of participants was restricted to about 30 participants to ensure that there was enough time for in depth discussion and reflection.

Participants came from Australia, China, India, Indonesia, Japan, Korea, Singapore, Thailand, Vietnam as well as from the United States, the United Kingdom and the OECD Secretariat.

The working language of the event was in English.
AGENDA

Draft Agenda: 11 January 2013

Educating for Innovation in Asia: theory, evidence and practice

OECD-CCE-Singapore Seminar
15-17 January 2013
Traders Hotel, Temasek Rooms 3 and 4

Day 1: 15 January 2013

Seminar chair on day 1: Tony MacKay,

8:45 onwards: Registration

9:00 - 9:15: Session 1: Opening remarks

This session will remind participants about the context and objectives of the workshop.

- Siew Hoong Wong, Deputy Director-General of Education (Curriculum), Ministry of Education, Singapore
- Paul Collard, Creativity, Culture and Education, United Kingdom
- Stéphan Vincent-Lancrin, OECD

9:15-10:30: Session 2: Skills requirements and the educational challenges of tomorrow

This session will present some research into the skills young people require to meet the social and economic needs of innovative societies. Original OECD work on skills and education for innovation societies will be presented here, notably a framework for the skills required. The focus would be twofold:

- the macro-international definitions of the skills required in the OECD area
- the relevance of such skills in the Asian context.

- Stéphan Vincent-Lancrin, OECD

Two discussants will debate the relevance of the presentation to their educational and economic priorities:

- Wei Li Liew, Ministry of Education, Singapore
Jin-Sook Kim, KICE, Korea

10.30-11.00: Coffee

11:00-12:00: Session 3: Educational programmes fostering creativity and innovation

This session will present examples of educational programmes or initiatives emphasising creative mindedness, critical thinking and entrepreneurial attitudes from both a European and Asian perspective. The session will be launched by brief presentations (15 minutes each) about what the different programmes change concretely to teaching practices in the classroom.

- Paul Collard, Creativity, Culture and Education, United Kingdom
- Sukhchandan Samra, Apeejay School, India
- Silaporn Buasai, The Thailand Research Fund, Thailand

Questions and answers

12:00-13:00: Session 3 (cont.): Educational programmes fostering creativity and innovation: Plenary discussion

This session will start a discussion based on the previous presentation to identify the features of educational programmes fostering creativity and innovation, and to start thinking about the barriers that they face, and how they tried to overcome them. Participants will be asked to reflect on similarities and differences with existing programmes in their countries.

13:00-14:00: Lunch

14:00-15:30: Session 4: Presentation
Pedagogies for thinking and creativity

This session will present a few examples of pedagogies that are used in Asia in order to foster simultaneously different sets of skills: traditional learning outcomes coupled with skills in thinking and creativity and with social and behavioural skills. The session will reflect on how different pedagogies or approaches to teaching and learning could be applied to compulsory education, and reflect on the facilitating and hampering factors in specific Asian contexts. The session will allow us to continue the discussion on the relative importance of the content of the curriculum and the ways of teaching. The session will be launched by brief presentations (15 minutes each) followed by questions, answers, and comments.

- Ramji Raghavan, Agastya Foundation, India
- Hideyuki Horii, University of Tokyo, Japan
- Kim Ho Sin, Ministry of Education, Singapore

15:30-16.00: coffee

16:00-17:00: Session 5: Discussion
Education for thinking and creativity
Working in groups, participants will build on the day’s presentation and discussions. This session will discuss the different ways of defining and implementing an educational reform agenda to foster skills in thinking and creativity (along subject-based skills) in school settings.

Some of the questions to discuss would be:

- Are there international principles in innovation-friendly education, or do the needs of different economies require different educational structures?
- What impact do (Asian) national identities and cultures have on the design of innovation-driven education systems?
- Do the expectations of students differ from the requirements of the nation and/or the economy?
- What are the views of parents and how should they be involved in the debate?
- How will national educational assessment systems have to change to measure the outcomes of an innovation-driven educational system?
- What are the specificities of Asian models and contexts for promoting skills for innovation through education?

**17:00-17:30: Session 6: Sharing**

The individual groups will summarise their conclusions and the issues raised for further discussion and research.

**19:00: Dinner**

More details to come, but this may just be an informal dinner with participants covering their costs.
Day 2: 16 January 2013

9:00-10.00: Session 7: Presentation
Assessing progression in creativity, critical thinking and other skills for innovation

In this session, a new tool developed by CCE in partnership with the OECD to assess formatively creative mindedness will be presented. The session will also present other assessment tools that try to focus teachers and students on higher order thinking skills.

- Paul Collard, CCE, United Kingdom
- Eugenia Tan, Ministry of Education, Singapore

10:00 – 10.30 Session 8: Discussion

Working in groups, participants will debate the relevance of the presentation to their own educational/economic priorities. They will also discuss how the presented tool would need to be adapted to the context of their country.

10:30-11.00: coffee

11:00-11.45: Session 9: Presentation
Innovation in education systems: what possible changes for the future?

This session will identify some of the systemic changes needed for education to effectively develop skills in thinking and creativity. It will present promising practices, but particularly focus on identifying some of the barriers to these innovations, notably in the Asian context. Questions such as teacher training, school organization, accountability and assessment policies and assessment, time allocation and curriculum structure, would be discussed.

- School organization and school system: drivers and barriers to creativity?
- Teacher training: are teachers well prepared for fostering creativity and critical thinking?
- Social factors that influence/impede necessary reforms

- Zhiyong Zhu, Beijing Normal University, China
- Tatang Suratno, Indonesia University of Education, Indonesia
- Yutaka Hatanaka and Masakatsu Kobayashi, Okuma Junior High School, Japan

11:45 – 12.30 Session 10: Plenary discussion

Participants will debate the relevance of the presentation to their own educational/economic priorities and reflect on the plausible levers of change in their national context.

12:30-13.30: lunch

13:30 – 14:00: Session 11: Reflection

This session will propose a first reflection on the workshop’s conversations so far. Based on her research and practical experience of educational innovation and change, Barbara
Schneider will reflect on the discussions, the extent to which some of the challenges discussed are specific or not to Asia, and propose some lines of reflection.

- Barbara Schneider, Michigan State University, United States

14:00 - 15:30: Session 12: Group discussion

Working in groups, participants will build on the workshop’s presentations and discussions to propose 6 hampering factors and 6 levers of change towards innovating education for creativity, critical thinking and other skills for innovation.

Groups will:

- Identify the most significant barriers and drivers to the full implementation of policy, practice and initiatives that can lead to better equip students with skills in thinking and creativity, notably in Asia;
- Develop specific recommendations and action steps to address these barriers and activate these drivers;

Some of the questions to discuss would be:

- What tensions exist between the needs of an innovation-friendly education system and the priorities of different actors in society (students, parents, teachers, employers, politicians, policy-makers, etc.)?
- How can the arguments be refined so that the wider political system is sensitive and supportive?
- What concrete initiatives, programmes or tools could or should be developed or mainstreamed to give more space to skills for innovation in the culture of our education systems?

15:30 – 16:30: Session 13: Sharing, wrap-up, next steps and close

The individual groups will present their diagnosis and recommendations and the issues raised for further discussion and research. The group will discuss them and try to integrate them in a single document.
Day 3: 17 January 2013 (Optional and tentative)

Schools that will be visited:

1. Haig Girls’ School
   Website: http://www.haiggirls.moe.edu.sg/

   Haig Girls’ School is a primary school in the east of Singapore, with its vision “Leaders of Character, Striving for Excellence in a Vibrant School” and its mission “to nurture self-directed learners and critical and creative thinkers who lead and serve with integrity and compassion”. In 2011, Haig Girls’ School designed “Timeout” (The Inspired Museum Explorers: Our Unique Travels), a learning programme to cultivate creative thinking in their students.

2. Dunman Secondary School
   Website: http://www.dunmansec.moe.edu.sg/

   Dunman Secondary School is an autonomous co-educational secondary school in the east of Singapore, and they are committed to instilling in students the five fundamental principles of Discernment, Discipline, Daring, Determination and Duty. In 2010, Dunman Secondary School was awarded the School Excellence Award (SEA), an award recognising schools for their excellence in both education processes and outcomes. The SEA serves as a mark of distinction for schools that have sustained achievements in a wide spectrum of student development processes.

Programme:

08:00  Participants to meet at lobby of Traders Hotel
08:00-08:30  Travel by chartered coach to Haig Girls’ School
08:30-09:00  Arrival at Haig Girls’ School
              Briefing on extended programme
              Briefing on Singapore education system
09:00-10:30  Tour of Haig Girls’ School
10:30-11:00  Tea Break, incorporating a Question-and-Answer session with key personnel in Haig Girls’ School
11:00-11:30  Travel by chartered coach to Dunman Secondary School
11:30-13:00  Tour of Dunman Secondary School
13:00-14:00  Lunch, incorporating a Question-and-Answer session with key personnel in Dunman Secondary School
14:00  End