

# Cultivating Talent

## Educating for Creativity and Innovation

Creativity and Innovation are about *people*, about people who create. It is not only the capacity to *invent*, but also the capacity to critically look at, reflect on, and improve whatever it is we do in life and contemporary societies. They cannot be decreed or imposed. They are neither spontaneous nor inevitable. They cannot be guaranteed, but they can be made more likely through effective policies, including education policies. At this latest NESSE seminar, two eminent contemporary thinkers, professor [Guy Claxton](#) from Bristol University's Graduate School of Education and professor [Andy Hargreaves](#) from the Lynch School of Education at Boston College, engaged with the questions:

- Do schools kill creativity?
- How can education and training systems nurture creativity and innovation?

The seminar left little doubt that the European Commission has a crucial role to play in supporting creativity and innovation in and through education and training.



The seminar started with the video [Do Schools Kill Creativity?](#), in which creativity expert Sir Ken Robinson challenges the way we educate our children and maintains

that "We are educating people out of their creativity".

### Creating positive learning cultures in education and training



In his presentation, **professor Claxton** argued that education systems have become mesmerised by their concern with the *development and assessment* of "knowledge, skill and understanding", and have neglected a vital third dimension: the gradual *cultivation of learning dispositions*.

Both school ethos and the minutiae of classroom practice, said the speaker, necessarily invite and strengthen certain 'habits of mind', and neglect or weaken others. Traditional pedagogies invite, and therefore exercise, the dispositions of analytical thinking and accurate retention, for example, but tend to neglect other qualities of mind, such as **imagination, intuition and intrinsic curiosity** – that are vital for innovation and creativity, he argued. For him, pedagogy can never be neutral with respect to this third dimension – what he

called the dimension of "epistemic apprenticeship". Therefore, the key question for professor Claxton is not whether we should be cultivating habits of mind – you can't not – but rather

- what habits of mind will be of most use to young people in a world that demands creativity and innovation of the many (and not just a few artists and research scientists); and
- whether the educational practices of today's schools and colleges are effective at cultivating the learning dispositions that underpin creativity and innovation

Professor Claxton argued that traditional pedagogies that cultivate the dispositions of what we can call the "clerical mind" are unequal to the times. For him, students who leave school with strong dispositions towards

- respect for authority
- accurate retention and rapid retrieval
- formulaic manipulation of unquestioned bodies of knowledge
- neatness and tidiness
- punctuality

and an aversion to learning that is slow, messy and confusing, are not equipped for the modern world.

By contrast, he argued, research now suggests that creativity and innovation are underpinned by a flexible combination of the following eight dispositions, which he called "The Magnificent Eight":

- **curiosity:** wonderment, scepticism and questioning
- **courage:** risk-taking, persistence and patience
- **investigation:** attending, researching and
- **experimentation:** rehearsing, playing and re-drafting
- **imagination:** visualisation, mental rehearsal and intuition
- **reason:** disciplined thinking, analysing and critiquing
- **sociability:** collaboration, dialoguing and giving and taking feedback
- **reflection:** strategising, evaluating and self-awareness

The attempt to "cultivate talent", said the expert, is doomed if it amounts to no more than adding lessons in "entrepreneurship" or training in "lateral thinking" or "learning to learn" on top of a core curriculum that continues to privilege retention and rationalisation. Two blind alleys have been identified. One is to turn "thinking" and "learning" into new "subjects" to be studied. Becoming more knowledgeable about, for example, "multiple intelligences", said the speaker, does not make people more multiply intelligent. (We are all knowledgeable about things we are not good at doing). The second cul-de-sac is to design courses that focus on the training of mental "skills", and accredits students with abilities that have been displayed only once or twice in a narrow range of atypical situations (like a classroom or an examination hall). To be able to "think critically" when prompted in a familiar setting is not the same thing at all as manifesting a broad disposition to think critically in a wide diversity of real-world settings, said professor Claxton.

**The only way for education and training to nurture creativity and innovation is to develop school cultures and classroom milieux that systematically welcome and stretch these eight families of dispositions,** argued professor Claxton. There are strong indications from a range of research paradigms, said the speaker, that the following five aspects of school milieux are of particular importance:

- The informal language and dominant discourses of the institution. Particularly harmful is the endemic use of fixed-ability language to offer accounts of students' successes and difficulties

- The example that is set by adults and older students. Particularly harmful is a culture of professional certainty and dogmatic knowledgeability
- The activities that are offered to students both within and outside lessons. Whilst dealing with the necessary bodies of knowledge, students must be given ample opportunity and encouragement to stretch all of the magnificent Eight dispositions
- The physical environment and the resources to which students have access. Displays of students' work, for example, must celebrate learning progress and "work-in-progress" as well as finished examples of excellence
- The school as a whole must measure itself against a broader portfolio of indicators than examination success. Indicators of students curiosity and resilience, for example, should be regularly collected and published.

Professor Claxton noted that **there are many schools where these cultural shifts are well under way. They are, in principle, not difficult to implement.** The only requirement is that teachers and officials should themselves be willing to modify their learning habits, and become more powerful role models of curiosity, risk-taking, mindful tinkering, imagination, critical appraisal, collaboration and strategic thinking.

## *Sustainable Knowledge Societies*



In the second part of the seminar, Andy Hargreaves undertook an analysis of policy trends and drew on his research on more than three decades of educational change in relation to sustainable knowledge society agendas. The session concluded with a discussion of the speaker's new work on The Fourth Way as a way to build the public engagement and professional learning and motivation necessary for educational success within sustainable knowledge societies.

According to the speaker, this Fourth Way brings together Government policy with professional involvement and public engagement around an inspiring social and educational mission. The theory-in-action of the Fourth Way, said professor Hargreaves,

consists of five pillars of purpose and partnership, three principles of professionalism and four catalysts of coherence:

### 1. Five Pillars of Purpose and Partnership

What ultimately bears the weight of sustainable educational change, noted the speaker, is not an overarching set of government policies and interventions, but people working together as partners around shared and compelling purposes. Sustainable educational change therefore rests, first of all, on five pillars of purpose and partnership:

- An Inspiring and Inclusive Vision, that draws people together in pursuit of an uplifting common purpose that connects them to something bigger than themselves and links an innovative future to the best of a nation's past.
- Deepened Public Engagement beyond elite representation, focus group consultation or increased consumer choice for parents, that inspires a Great Public Debate about the future of education - in 2020, say – as a public and not merely a private and individual good.
- Achievement Through Investment where social policy is no longer only about outputs and test-based achievement gaps for which professionals are solely responsible, but also reconnects with the First Way's emphasis on inputs as a shared social responsibility to support and create better opportunities for the poor, through increased investment in educational facilities and other social services.
- Corporate Educational Responsibility where the corporations that contribute to public educational and educational reform, at any level, are expected to practice Corporate Social Responsibility in a relationship where educational and business partners are equally accountable.
- Students as Partners in Change rather than merely targets of change efforts and services, so that they become more involved in their own learning and learning choices, actively consulted about the quality and improvement of teaching, and substantially engaged in the overall governance of the school and its development.

### 2. Three Principles of Professionalism

Teachers are the ultimate arbiters of change. They are also often the initiators of it within their own schools and classrooms. No theory-in-action of sustainable educational change can ignore or bypass the teacher. It must involve teachers not just in delivering pedagogical details, but also in determining the basic purposes of their work. Three principles of professionalism are indispensable components of any sustainable theory-in-action of educational change:

- High Quality Teachers who are attracted by their country's inspiring and inclusive vision that also accords high status to them as builders of their nation's future; who enjoy supportive working conditions as well as sufficient pay and professional autonomy; and who are trained to a rigorous intellectual and practical standard that is the hallmark of any demanding profession.
- Powerful professionalism in which much of the professional quality agenda is driven by a self-regulating professional body in teaching like those in medicine or law, that sets rigorous professional teaching standards for its members.
- Lively Learning Communities where teachers learn and improve together in lively cultures of collaboration, trust and responsibility that include substantive commitment to curriculum development as well as pedagogical change; rather than cooperation being mainly focused on short-term, contrived, and bolted-on efforts to analyse performance data in order to raise test scores or narrow numerical achievement gaps.

### 3. Four Catalysts of Coherence

The hardest part of any theory-of -action in educational change is not how to start it, but how to make it spread. Detailed prescription and alignment increase consistency but at the cost of depth, breadth and complexity. The challenge of coherence is not to clone or align everything so it looks the same in all schools. Rather, it is how to bring diverse people together to work skilfully and effectively for a common cause that lifts them up and has them moving in the same direction. The Fourth Way has four catalysts that create this coherence:

- Sustainable Leadership that is integral to educational change, not its afterthought. Effective leaders pull their communities together to achieve a common purpose. Change efforts must address the excessive demands that deter many potential leaders from leading and policy strategies must go beyond treating leaders as mere managers and implementers of imposed targets and external initiatives, to become developers of their communities
- Networks of Mutual Learning where schools support and learn from schools, become collectively responsible for all the children in their city or community, and commit to systems and dispositions where the strong help the weak – but where governments refrain from over-regulating the networks they initiate or support.
- Responsibility Before Accountability where collective professional responsibility has a higher and prior priority compared to external accountability and where external accountability is organized by samples that monitor standards of practice rather than by a census, which tends to distort that practice.
- Building From The Bottom; Steering From The Top - not letting a thousand flowers bloom, or micromanaging everything in detail or even retaining top-down control over narrowly defined goals and targets with the assistance of technocratic surveillance and effervescent interactions. The Fourth Way, rather, is a democratic and sustainable path to improvement that builds from the bottom and steers from the top.

Professor Hargreaves argued that in the Fourth Way, a robust social democracy builds an inspiring and inclusive vision that draws teachers to the profession and grants them public status within it; it involves parents and the public as highly engaged partners and also draws on as well as making a contribution to the development of corporate educational responsibility. In the Fourth Way, said the speaker, a lot is expected of educators, but the burden of narrowing achievement gaps and achieving social justice does not rest on their shoulders alone. It is shared with a strongly supported health service, housing system and social service sector. In all this, students in the Fourth Way are not

merely targets of change but vigorous and active partners in its development.

For professor Hargreaves, the Fourth Way achieves coherence by assigning huge priority to the development of sustainable and distributed leadership that is knowledgeable about learning; by placing responsibility before accountability (with accountability serving as a conscience through sampling); by initiating and supporting but not over-regulating professional networks of improvement; and – most of all – by developing an inspiring and inclusive educational and societal vision that connects the future to the past, and leaves teachers collectively responsible for pedagogical decisions and a lot of curriculum development. The Third Way of Change, said professor Hargreaves, has already done a great deal to demonstrate the power of increased professional energy, but it has increased central political control at the price of innovation and creativity. It is time for a Fourth Way to harness increased professional learning and energy to more inspiring and inclusive purposes of creativity, sustainability and democracy.

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**The next NESSE seminar is on 26 June (10:00-13:00) on**  
***Teachers Touch Lives:***  
***Improving the Quality of Teacher Education***

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**Other NESSE seminars:**

***Research, Policy and Practice*** -08/06/07

***Education, Inequalities and Social Exclusion*** -05/07/07

***Fostering Innovation: the role of education and training*** -18/09/07

***Education and Migration*** -09/10/07

***Achieving equality in practice: challenges for policy-makers*** -12/11/07

***New Governance Models for Education and Training and their Implications*** -05/12/07

***Priority Education Policies to Combat Inequalities and School Failure*** -27/02/08

***Education and the Integration of Migrant Children: lessons from research for policy and practice*** -25/04/08

***Teachers Touch Lives: improving the quality of teacher education*** -26 June 2008

***Which Citizen for which Europe? Complementarity and conflict between the economic and socio-cultural aims of education and training*** - October 2008

***Education and Well-Being*** - November 2008

There will be more NESSE seminars in 2009